Final
After Action Report/ Improvement Plan

Exercise Date – June 11, 2019
Radiological Emergency Preparedness (REP) Program
Point Beach Nuclear Plant

FEMA

Published September 12, 2019

This page is intentionally blank

CONTENTS

CONTENTS iii

EXECUTIVE SUMMARY 1

SECTION 1: Exercise Overview 4

1.1 EXERCISE DETAILS 5

1.2 Exercise Planning Team Leadership 6

1.3 Participating Organizations 8

SECTION 2: Exercise Design Summary 10

2.1 Exercise Purpose and Design 10

2.2 FEMA Core Capabilities and Exercise Objectives 11

SECTION 3: Analysis of Capabilities 14

3.2 Exercise Evaluation and Results 16

Table 3.2.1 – Summary of Exercise Evaluation – State of Wisconsin 18

Table 3.2.2 – Summary of Exercise Evaluation – State of Wisconsin 19

Table 3.2.3 – Summary of Exercise Evaluation – Kewaunee County 20

Table 3.2.4 - Summary of Exercise Evaluation – Kewaunee County 21

Table 3.2.5 – Summary of Exercise Evaluation – Manitowoc County 22

Table 3.2.6 – Summary of Exercise Evaluation – Manitowoc County 23

3.3 Jurisdictional Summary of Exercise Evaluation Results 25

3.3.1 State of Wisconsin 25

3.3.1.1 State Initial Warning Point – DOT – Traffic Management Center 25

3.3.1.2 SEOC 25

3.3.1.3 State Radiological Coordinator Room 26

3.3.1.4 Forward Operations Center – Mobile Radiological Laboratory 26

3.3.1.5 Restricted Area Field Team #1 27

3.3.1.6 Restricted Area Field Team #2 27

3.3.1.7 State Liaison - Kewaunee County Emergency Operations Center 28

3.3.1.8 State Liaison - Manitowoc County Emergency Operations Center 28

3.3.1.9 JIC – Media Center 28

3.3.1.10 Public Inquiry Hotline/State PIO – WDIAL/Media Room 29

3.3.1.11 Holy Family Hospital - Medical Services – Facility 29

3.3.1.12 Luxemburg/Casco Intermediate School District – EVAC/EW Mon/Decon 29

3.3.1.13 Luxemburg/Casco – EW Veh/ Equip Mon/Decon 29

3.3.1.14 Aurora Bay Care Medical Center – Medical Services – Facility 30

3.3.2 Kewaunee County 32

3.3.2.1 Initial Warning Point 32
3.3.2.2 EOC 32
3.3.2.3 TACP - After Dosimetry Briefing 33
3.3.2.4 JIC - Kewaunee County PIO 33
3.3.2.5 EAS – WDOR Radio Station 33
3.3.2.6 Luxemburg/Casco School District – Dosimetry Distribution Point 33
3.3.2.7 Luxemburg/Casco School District – MS-1 Transportation 34

3.3.3 Manitowoc County 36
3.3.3.1 Initial Warning Point 36
3.3.3.2 EOC 36
3.3.3.3 TACP – Manitowoc County Reception Center 37
3.3.3.4 JIC – Manitowoc County PIO 37
3.3.3.5 EAS – WOMT Radio Station 37
3.3.3.6 Manitowoc County Highway Department – Dosimetry Distribution Point 37
3.3.2.7 Manitowoc Fire Department – MS-1 Transportation 38

SECTION 4: Conclusion 39

APPENDIX A: Improvement Plan 41

APPENDIX B: Exercise Timeline 46

APPENDIX C: Exercise Evaluation Team 48

APPENDIX D: Acronyms and Abbreviations 50

APPENDIX E: Extent-of-Play Agreements.. 55
STATE OF WISCONSIN 56
KEWAUNEE COUNTY, WISCONSIN 56
MANITOWOC COUNTY, WISCONSIN 56

APPENDIX F: Offsite/Onsite Scenario Timeline 80

This page is intentionally blank

EXECUTIVE SUMMARY

On June 11, 2019, a Radiological Emergency Preparedness (REP) Plume Exposure Pathway Exercise was conducted for the 10-mile Emergency Planning Zone (EPZ) around the Point Beach Nuclear Plant (PBNP) by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA), Region V. The purpose of the exercise was to assess the level of State and local preparedness for response to a radiological emergency. This exercise was conducted in accordance with DHS/FEMA's policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

The most recent exercise at this site was conducted on September 19 & 20, 2017. The qualifying emergency preparedness exercise for the PBNP was conducted on March 9, 1982.

The PBNP is owned and operated by NextEra Energy, LLC. The plant consists of two-loop pressurized water reactors (Units 1 and 2) supplied by Westinghouse Electric Company, rated at 512 and 514 megawatts (MW), respectively. The operating licenses for the facility were granted in August 1973 (Unit 1) and October 1974 (Unit 2). Commercial operations began at the site during December 1973 (Unit 1) and December 1974 (Unit 2).

The plant site is located about 30-miles southeast of the city of Green Bay in Two Rivers, Wisconsin. Population centers within 50-miles of the site with more than 25,000 people include: Manitowoc (2010 census population: 33,736), located 13-miles southwest of the site; Green Bay (2010 census population: 104,057), located 30-miles northwest of the site; Appleton (2010 census population: 72,623), located 43-miles southwest of the site; and Sheboygan (2010 census population: 49,288), located 36-miles southwest of the site. The town of Two Rivers, which is located 10-miles south of the site, had a 2010 census population of 11,712.

The total population located within the 10-mile plume pathway EPZ was 20,954. The protective action Sub-Areas located within the 10-mile EPZ are as follows: 5, 10N, 10NW, 10W, 10SW, and 10S.

DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. The State of Wisconsin, the risk Counties of Kewaunee and Manitowoc, local municipalities as well as various non-government entities and volunteers all contributed to the success of the exercise.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork on the part of all the participants was evident during this exercise.

This Final After-Action Report/Improvement Plan contains the evaluation of the biennial exercise and the following out-of-sequence activities:

State of Wisconsin:

- Evacuee/Emergency Worker Equipment Monitoring/Decontamination including vehicles Medical Services (MS-1) - Hospital Facility.

Kewaunee County:

- Medical Services (MS-1) – Transportation

Manitowoc County:

- Medical Services (MS-1) – Transportation

This page is intentionally blank

SECTION 1: Exercise Overview

The DHS/FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and in the review and evaluation of Radiological Emergency Preparedness Plans (RERPs) and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated December 7, 2015 (Federal Register, Vol. 82, No. 88, May 9, 2017); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
    - U.S. Department of Agriculture;
    - U.S. Department of Commerce;
    - U.S. Department of Energy;
    - U.S. Department of Health and Human Services;
    - U.S. Department of the Interior;
    - U.S. Department of Transportation;
    - U.S. Environmental Protection Agency;
    - U.S. Food and Drug Administration; and
    - U.S. Nuclear Regulatory Commission.

Representatives of these agencies serve on the DHS/FEMA Region V Regional Assistance Committee (RAC), which is chaired by DHS/FEMA.

A REP Full-Participation Plume was conducted on June 11, 2019 and evaluated by the DHS/FEMA to assess the capabilities of State and Local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the Point Beach Nuclear Plant (PBNP). Numerous out-of-sequence activities were conducted in support of the exercise during the weeks of May 1 and June 10, 2019. The purpose of

this exercise report is to present the exercise results and findings on the performance of the Offsite Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chair and approved by the DHS/FEMA Headquarters.

The criteria utilized in the FEMA evaluation process are contained in:

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980; and
- FEMA REP Program Manual dated January 2016.

1.1 EXERCISE DETAILS

EXERCISE NAME

2019 Point Beach Nuclear Plant Plume Exposure Pathway Exercise Radiological Emergency Preparedness (REP), Full-Scale, Plume Pathway Exercise

TYPE OF EXERCISE

Plume Pathway

EXERCISE DATE

June 11, 2019

LOCATIONS

See Appendices C and E for a complete list of locations.

SPONSORS

Wisconsin Emergency Management
2400 Wright Street
Madison, WI 53704

Next Era Energy – Point Beach Nuclear Plant
3060 Voyager Drive
Green Bay, WI

PROGRAM

Department of Homeland Security/Federal Emergency Management Agency Radiological Emergency Preparedness Program

MISSION

Response

SCENARIO TYPE

Radiological Emergency

1.2 EXERCISE PLANNING TEAM LEADERSHIP

Sean O'Leary
Chair, Regional Assistance Committee
Chief, Technological Hazards Branch
DHS/FEMA Region V
536 South Clark Street
Chicago, Illinois 60605
312-408-5389
sean.oleary@fema.dhs.gov

Dwaine Warren
Exercise Director
DHS/FEMA Region V
Supervisory Team Leader
536 South Clark Street
Chicago, Illinois 60605
312-408-5342
dwaine.warren@fema.dhs.gov

Stephen Tulley
Assistant Exercise Director
DHS/FEMA Region V
Supervisory Team Leader
536 South Clark Street
Chicago, Illinois 60605
312-408-4425
stephen.tulley@fema.dhs.gov

James King
Site Specialist
DHS/FEMA Region V
536 South Clark Street
Chicago, Illinois 60605
312-408-5596
james.king@fema.dhs.gov

Adam Davenport
REP Program Manager
Wisconsin Emergency Management
2400 Wright Street
Madison, WI, 53704
608-242-3242
adam.davenport@wisconsin.gov

Charles Adams
Department of Health Services/Radiation Protection
1 West Wilson Street
Madison, WI 53701
608-267-4794
charles.adams@dhs.wisconsin.gov

1.3 PARTICIPATING ORGANIZATIONS

Agencies and organizations of the following jurisdictions participated in the exercise:

STATE ORGANIZATIONS

State of Wisconsin Department of Health Services/Radiation Protection Section
University of Wisconsin Extension Service
Wisconsin Department of Agriculture, Trade and Consumer Protection
Wisconsin Department of Education
Wisconsin Department of Health Wisconsin Department of Justice Wisconsin Department of Military Affairs
Wisconsin Department of Military Affairs Emergency Management Wisconsin Governor's Office
Wisconsin National Guard
Wisconsin State Patrol

RISK COUNTY ORGANIZATIONS

Kewaunee County

American Red Cross
Amateur Radio Operators
Algoma Fire Department Emergency Medical Services Kewaunee County Board Chairperson
Kewaunee County Department of Human Services Kewaunee County Emergency Management Kewaunee County Health Services
Kewaunee County Land and Water
Kewaunee County Public Information Officer
Kewaunee County Highway Department
Kewaunee County School District Superintendent Kewaunee County Sheriff's Office
Kewaunee Count University of Wisconsin Agricultural Extension

Manitowoc County

Aging Disability Resource Center
Manitowoc County Department of Highway Manitowoc County Emergency Management Manitowoc County Executive
Manitowoc County Health Department Manitowoc County Human Services
Manitowoc County Police Department Manitowoc County Sheriff's Department
Manitowoc Fire Department
Manitowoc Count University of Wisconsin Agricultural Extension
Two Rivers Police Department
Two Rivers Fire Department

PRIVATE ORGANIZATIONS

American Red Cross
Aurora Bay Medical Center

Casco Fire Department
Dworak Bus Service
EAS Stations WOMT/WDOR
Holy Family Hospital
Green Bay Metro Fire Department/Hazardous Response Team
Luxemburg Ambulance Service-MS-1
Luxemburg Community Fire Department
Luxemburg police Department
Manitowoc County Fire Department/EMS-MS-1
Next Era Energy
Wisconsin Amateur Radio Operators

FEDERAL ORGANIZATIONS

U.S. Nuclear Regulatory Commission
U.S. Department of Agriculture
U.S. Department of Energy
U.S. Department of Homeland Security/Coast Guard
U.S. Department of Homeland Security/Federal Emergency Management Agency
U.S. Environmental Protection Agency

EXERCISE EVALUATION ORGANIZATIONS (See Appendix C for Details)

U.S. Department of Homeland Security/Federal Emergency Management Agency
ICF International, Inc. (Contractor Support to DHS/FEMA)

SECTION 2: Exercise Design Summary

2.1 EXERCISE PURPOSE AND DESIGN

The Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) administers the Radiological Emergency Preparedness (REP) Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351, and 352. Title 44 CFR Part 350 names sixteen planning standards that form the basis for radiological emergency response planning for state, tribal, and local governments impacted by the EPZs established for each nuclear power plant site in the United States. Title 44 CFR Part 350 sets forth the mechanisms for the formal review and approval of state, tribal, and local government radiological emergency response plans and procedures by DHS/FEMA. One of the REP Program requirements established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, DHS/FEMA evaluates state, tribal, and local government plans, procedures, and actions to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

The DHS/FEMA provides a statement with the transmission of this Draft AAR/IP to the United States Nuclear Regulatory Commission (NRC) that the affected state, tribal, and local plans and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and (2) capable of being implemented. The report and statement are based on the results of this exercise, review of the radiological emergency response plans and procedures, and verification of the periodic requirements set forth in *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980* (NUREG-0654/FEMA-REP-1, Rev. 1) through the annual letter of certification and staff assistance visits.

Formal submission of the radiological emergency response plans for the Point Beach Nuclear Plant to DHS/FEMA Region V by the State of Wisconsin and Kewaunee and Manitowoc Counties occurred on March 13, 2019. Formal approval of these RERPs was granted by FEMA on May 13, 2019, under 44 CFR 350.

The DHS/FEMA Region V Radiological Emergency Preparedness (REP) Program Staff evaluated the Point Beach Nuclear Plant (PBNP) REP Full-Participation Plume Exposure Pathway Exercise conducted on June 11, 2019, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving PBNP. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

Scenario Summary

Appendix F "Scenario Details," contains a summary of the Exercise Scenario and a simulated sequence of events that was used as the basis for invoking emergency response actions by OROs during the PBNP REP Full Participation Plume Exposure Pathway exercise on June 11, 2019.

Results of a technical review of the scenario, submitted by the State of Wisconsin and Next Era Energy on March 29, 2019, indicated that the scenario was adequate to support demonstration of DHS/FEMA

requirements, as well as criteria selected by the OROs provided in the State's March 29, 2019, extent-of-play submission. The DHS/FEMA Region V accepted this exercise scenario on March 29, 2019.

During the exercise, in addition to information and data provided through the PBNP onsite scenario, controllers from the State of Wisconsin provided "inject messages" containing scenario events and/or relevant data to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking additional specific response actions by OROs.

2.2 FEMA CORE CAPABILITIES AND EXERCISE OBJECTIVES

Core Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas. The critical tasks to be demonstrated were negotiated with the State of Wisconsin, Kewaunee and Manitowoc Counties. The Core Capabilities demonstrated during this exercise were:

Operational Coordination: Mobilize all critical resources and establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident. Enhance and maintain command, control, and coordination structures consistent with the National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

Situational Assessment: Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response. Deliver information sufficient to inform decision making regarding immediate lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs and stabilize the incident. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and transition to recovery.

Public Information and Warning: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available. Inform all affected segments of society of critical lifesaving and life-sustaining information by all means necessary, including accessible tools, to expedite the delivery of emergency services and aid the public to take protective actions. Deliver credible actionable messages to inform ongoing emergency services and the public about protective measures, and other life-sustaining actions, and facilitate the transition to recovery.

Environmental Response/Health and Safety: Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities. Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers. Minimize public exposure to environmental hazards through assessment of the hazards and implementation of public protective actions. Detect, assess, stabilize, and clean up releases of oil and

hazardous materials into the environment, including buildings/structures, and properly manage waste. Identify, evaluate, and implement measures to prevent and minimize impacts to the environment, natural and cultural resources, and historic properties from all-hazard emergencies and response operations.

On-Scene Security, Protection, and Law Enforcement: Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel engaged in lifesaving and life-sustaining operations. Establish a safe and secure environment in an affected area. Provide and maintain on-scene security and meet the protection needs of the affected population over a geographically dispersed area while eliminating or mitigating the risk of further damage to persons, property, and the environment.

Critical Transportation: Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors. Ensure basic human needs are met, stabilize the incident, transition into recovery for an affected area, and restore basic services and community functionality. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.

Mass Care Services: Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs. Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population. Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

Public Health, Healthcare, and Emergency Medical Services: Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. Deliver medical countermeasures to exposed populations. Complete triage and initial stabilization of casualties and begin definitive care for those likely to survive their injuries and illnesses. Return medical surge resources to pre-incident levels, complete health assessments, and identify recovery processes.

Operational Communications: Ensure the capacity for timely communications in support of security, situational awareness, and operations, by any and all means available, among and between affected communities in the impact area and all response forces. Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, tribal, state, and local first responders.

Infrastructure Systems: Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery. Provide for the clearance, removal, and disposal of debris. This core capability includes the capability to address roadway impediments due to landslides and other events that impair/impede safe evacuation of the public.

The Core Capabilities and their associated Evaluation Criteria selected for demonstration by the jurisdictions establish the assessment objectives for the exercise. These Core Capabilities, when successfully demonstrated, meet the exercise objectives.

The objectives for this exercise were as follows:

Objective 1: Demonstrate the ability to provide direction and control and make protective action decisions through the state emergency operations centers, county emergency operations centers, and field activities by exercise play and discussion of plans and procedures.

Objective 2: Demonstrate the ability to make protective action decisions affecting state and county emergency workers and the public through exercise play and discussion of plans and procedures.

Objective 3: Demonstrate the ability to implement protective actions for state and county emergency workers and the public through exercise play and discussion of plans and procedures.

Objective 4: Demonstrate the ability to activate the prompt alert and notification system utilizing the primary notification system and the emergency alert system through exercise play and discussion of plans and procedures.

Objective 5: Demonstrate the effectiveness of plans, policies, and procedures in the joint information centers and the joint information system for public and private sector emergency information communications through exercise play and discussion of plans and procedures.

Objective 6: Demonstrate the ability to monitor, decontaminate, register, and shelter evacuees through exercise play and discussion of plans and procedures.

Objective 7: Demonstrate the ability to provide dose projection and protective action decision making for the plume phase.

Objective 8: Demonstrate the capacity for timely communications in support of security, situational awareness, and operations in accordance with the plan, procedures, and Extent-of-Play Agreement, among and between affected communities in the impact area and all response forces.

Objective 9: Demonstrate the capacity to stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Demonstrate the capacity to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

Collectively, these nine Objectives successfully demonstrated the Core Capabilities and Evaluation Criteria selected by the jurisdictions in accordance with NUREG-0654/FEM-REP-1 and the REP Program Manual (FEMA P-1028, dated January 2016).

SECTION 3: Analysis of Capabilities

3.1 SUMMARY RESULTS OF EXERCISE EVALUATION

This section provides a combined assessment of state and local jurisdictions based upon their collective demonstrated performance under the core capabilities associated with the exercise evaluation criteria described in Appendix E Extent-of-Play Agreements. It employs an integration of the Homeland Security Exercise Evaluation Program and REP Program evaluation methodologies – an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more critical tasks under specified conditions and to specific performance standards. Core capabilities form the foundation of the National Preparedness System. The REP Program evaluation criteria provide the conditions and performance standards for establishing reasonable assurance that State and Local authorities can protect public health and safety in response to a nuclear power plant accident.

An overall summary of demonstrated capabilities is presented in Section 3.2, Tables 3.2.1 through 3.2.11, of this report. Criteria-specific narrative summaries are presented in Section 3.3 of the report. The narratives summarize observations made pursuant to the REP Program Evaluation Criteria used to assess the organizations and locations that were selected by the State of Wisconsin, and Kewaunee and Manitowoc Counties. The organizations, locations, and evaluation criteria selected by the State of Wisconsin, and Kewaunee and Manitowoc Counties are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on March 29, 2019.

The results of the assessment are summarized below by Core Capability, as demonstrated during the June 11, 2019, Point Beach Nuclear Plant Full-Participation, Plume Exposure Pathway, Radiological Emergency Preparedness Exercise.

Operational Coordination: Key leadership personnel established and maintained a unified and coordinated operational structure which provided effective and responsive command, direction and control and coordination within and between the affected jurisdictions to meet basic human needs and stabilize the incident.

Critical stakeholders were appropriately integrated within the overall decision-making process, which enabled protective action recommendations to be evaluated in an appropriate and timely manner. This process included input from both relevant critical stakeholders and support personnel and considered the safety and well-being of emergency workers and the general public and protecting property and infrastructure protective action decisions were made without undue delay.

Situational Assessment: Decision makers were provided with decision-relevant information regarding the nature and extent of the simulated radiological and other hazards, any cascading effects, and the status of the response. The Wisconsin Emergency Management Agency and Wisconsin Department of Health Services/Radiation Protection Section demonstrated proficiency in the use of dose assessment software to calculate dose projections independent of the Point Beach Nuclear Plant's dose projections. The staff calculated hypothetical dose projections based on plant conditions, possible release scenarios, and Controller-injected field monitoring team data. Leadership was prepared to gather and deliver enhanced information to reinforce lifesaving and life-sustaining activities, if needed, and engage governmental and private sector resources within and outside of the affected area to meet basic human needs and stabilize the incident, as necessary.

Public Information and Warning: The jurisdictions as a whole demonstrated the ability to deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent and accessible means. Accurate initial information and follow-up on instructions were made with the formulation of news releases being reviewed from the Joint Information System and briefings conducted at the PBNP Joint Public Information Center and at the Kewaunee and Manitowoc County EMAs. Alert and notification of the public and media was completed in a timely manner by simulated means of sounding of sirens, Emergency Alert System messaging, warning in state parks, news releases, and media briefings. The simulated release of information via the aforementioned public information modes were consistent with protective action decisions and contained applicable and specific instructions relative to those decisions.

Environmental Response/Health and Safety: Appropriate measures were taken to ensure the protection of the health and safety of the public and workers, as well as the environment in support of responder operations and the affected communities. The availability of guidance and resources to address hazardous radiological materials was integrated in support of responder operations and the affected communities. State Liaisons at the PBNP Emergency Operations Facility communicated well with the State Emergency Operations Center to ensure that state protective action recommendations and county protective action decisions and responses were coordinated properly. Leadership identified, assessed, and mitigated worker health and safety hazards and disseminated health and safety guidance and resources to responders in accordance with the scenario, plans and procedures, and the extent-of-play agreements.

On-Scene Security and Protection: State and local law enforcement agencies demonstrated the capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel who could have been directed to engage in lifesaving and life-sustaining operations. The implementation of traffic and access control was appropriately assessed and coordinated in a timely manner. On-scene security at EOCs, schools, reception centers and other facilities met protection requirements and eliminated or mitigated the risk of damage to persons, property, and the environment.

Critical Transportation: Officials demonstrated the capability to provide infrastructure access and accessible transportation services for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. School officials effectively demonstrated the ability to implement protective actions for affected local schools.

Mass Care Services: Congregate care center staff demonstrated the ability to provide life-sustaining services to affected populations with a focus on family reunification, feeding and sheltering. The American Red Cross, which manages all shelter operations under the REP Program, demonstrated the ability to provide resources, services and accommodations consistent with planning guidelines. They also demonstrated knowledge of the process to determine whether evacuees had been monitored for contamination and determined to be acceptable before entering congregate care facilities.

Public Health, Healthcare, and Medical Services: Qualified medical personnel successfully demonstrate the ability to provide targeted public health, medical, behavioral health support, and products to populations that might enter shelters and deliver medical countermeasures to exposed populations.

Operational Communications: Evaluation Criterion 1.d.1, which is the key criterion for this capability, was evaluated for applicable organizations and functional entities. Each applicable organization and location demonstrated the capacity for timely communications in support of security, situational awareness, and operations by primary and backup means, the ability to communicate with both the emergency response community and the affected populations, and to establish interoperable

communications between Federal, state, and local all response groups and locations, and between affected communities in the impact area.

Infrastructure Systems: Evaluation Criterion 3.d.2, which is the key criterion for this capability, was assessed pursuant to the capability of Kewaunee and Manitowoc Counties to address impediments to mass evacuation. Kewaunee and Manitowoc Counties demonstrated the capability to address roadway impediments that impair/impede safe evacuation of the public.

3.2 EXERCISE EVALUATION AND RESULTS

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the June 11, 2019 Full-Participation Plume Exposure Pathway Exercise and out-of-sequence interviews and demonstrations.

Each jurisdiction and functional entity was evaluated based on their demonstration of Core Capabilities and their equivalent Radiological Emergency Preparedness Evaluation Criteria, as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following terms:

- M: Met (no unresolved Level 1 or Level 2 Findings were assessed, and there were no unresolved Findings from prior exercises)
- L1: Level 1 Finding was assessed
- L2: Level 2 Finding was assessed or there was an unresolved Level 2 Finding from a prior exercise
- P: Plan Issue was assessed
- ND: Not Demonstrated (the criterion was not demonstrated)
- NS: Not Selected (the criterion was not selected for demonstration)

This page is intentionally blank

Table 3.2.1 – Summary of Exercise Evaluation – State of Wisconsin

DATE: June 11, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Initial Warning Point – Warning Center 1	State EOC	State Radiological Coordinator Room	Forward Ops Center Mobile Radiological Lab	Restricted Area Field Team #1	Restricted Area Field Team #2	WEM Regional Director	JIC	Public Inquiry Hotline/State PIO
Emergency Operations Management										
Mobilization	1a1	M	M	M	M	M	M		M	M
Facilities	1b1									
Direction and Control	1c1		M	M	M			M	M	
Communications Equipment	1d1	M	M	M	M	M	M		M	M
Equipment and Supplies to Support Operations	1e1		M	M	M	M	M		M	M
Protective Action Decision-Making										
EW Exposure Control Decisions	2a1		M	M		M	M			
PARs	2b1		M	M						
PADs	2b2		M	M				M		
PADs for Disabled/Functional Needs	2c1		M	M						
Ingestion PADs	2d1									
RRR Decisions	2e1									
Protective Action Implementation										
EW Exposure Control Implementation	3a1				M	M	M			
KI Public/Institutionalized	3b1									
PAD Implementation Disabled/Functional Needs	3c1									
PAD Implementation Schools	3c2									
TACP Establishment	3d1									
Impediments	3d2									
Implement Ingestion PADs	3e1									
Ingestion Pathway Decisions	3e2									
Implementation of RRR Decisions	3f1									
Field Measurement and Analysis										
RESERVED	4a1									
Field Team Management	4a2									
Field Team Operations	4a3					P	M			
Field Team Sampling	4b1									
Laboratory Operations	4c1				M					
Emergency Notification and Public Info										
Initial Alert & Notification	5a1							M		
RESERVED	5a2									
Backup Alert & Notification	5a3									
Exception Area Alerting	5a4									
Subsequent Information & Instructions	5b1							M	M	M
Support Operations and Facilities										
Reception Center Operations	6a1									
EW Monitoring & Decontamination	6b1									
Congregate Care	6c1									
Contaminated Injured Transport & Care	6d1									

Table 3.2.2 – Summary of Exercise Evaluation – State of Wisconsin

Out-of-Sequence Activities

DATE: June 10, 2019/May 1, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	MS-1 Hospital Holy Family Hospital	EVAC / EW Mon/Decon - Luxemburg/Casco Intermediate School Dist	EW Veh / Equip Mon/Decon - Luxemburg/Casco	MS-1 Hospital Aurora BayCare Medical Center
Emergency Operations Management					
Mobilization	1a1				
Facilities	1b1				
Direction and Control	1c1				
Communications Equipment	1d1	M	M	M	
Equipment and Supplies to Support Operations	1e1	M			
Protective Action Decision-Making					
EW Exposure Control Decisions	2a1				
PARs	2b1				
PADs	2b2				
PADs for Disabled/Functional Needs	2c1				
Ingestion PADs	2d1				
RRR Decisions	2e1				
Protective Action Implementation					
EW Exposure Control Implementation	3a1	M	M	M	M
KI Public/Institutionalized	3b1				
PAD Implementation Disabled/Functional Needs	3c1				
PAD Implementation Schools	3c2				
TACP Establishment	3d1				
Impediments	3d2				
Implement Ingestion PADs	3e1				
Ingestion Pathway Decisions	3e2				
Implementation of RRR Decisions	3f1				
Field Measurement and Analysis					
RESERVED	4a1				
Field Team Management	4a2				
Field Team Operations	4a3				
Field Team Sampling	4b1				
Laboratory Operations	4c1				
Emergency Notification and Public Info					
Initial Alert & Notification	5a1				
RESERVED	5a2				
Backup Alert & Notification	5a3				
Exception Area Alerting	5a4				
Subsequent Information & Instructions	5b1				
Support Operations and Facilities					
Reception Center Operations	6a1				
EW Monitoring & Decontamination	6b1	M	M	M	
Congregate Care	6c1				
Contaminated Injured Transport & Care	6d1				M

Table 3.2.3 – Summary of Exercise Evaluation – Kewaunee County

DATE: June 11, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Initial Warning Point	EOC	TACP at K-County EOC	JIC County PIO	EAS Radio Station WDOR (Sturgeon Bay)
Emergency Operations Management						
Mobilization	1a1	M	M		M	
Facilities	1b1					
Direction and Control	1c1		M		M	
Communications Equipment	1d1	M	M	M		M
Equipment and Supplies to Support Operations	1e1		M	M		
Protective Action Decision-Making						
EW Exposure Control Decisions	2a1		M			
PARs	2b1					
PADs	2b2		M			
PADs for Disabled/Functional Needs	2c1		M			
Ingestion PADs	2d1					
RRR Decisions	2e1					
Protective Action Implementation						
EW Exposure Control Implementation	3a1		M	M		
KI Public/Institutionalized	3b1		M			
PAD Implementation Disabled/Functional Needs	3c1					
PAD Implementation Schools	3c2		M			
TACP Establishment	3d1		M	M		
Impediments	3d2		M			
Implement Ingestion PADs	3e1					
Ingestion Pathway Decisions	3e2					
Implementation of RRR Decisions	3f1					
Field Measurement and Analysis						
RESERVED	4a1					
Field Team Management	4a2					
Field Team Operations	4a3					
Field Team Sampling	4b1					
Laboratory Operations	4c1					
Emergency Notification and Public Info						
Initial Alert & Notification	5a1		M			M
RESERVED	5a2					
Backup Alert & Notification	5a3					
Exception Area Alerting	5a4					
Subsequent Information & Instructions	5b1				M	
Support Operations and Facilities						
Reception Center Operations	6a1					
EW Monitoring & Decontamination	6b1					
Congregate Care	6c1					
Contaminated Injured Transport & Care	6d1					

Table 3.2.4 - Summary of Exercise Evaluation – Kewaunee County

Out-of-Sequence Activities

DATE: May 1, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Dosimetry Distribution Point - Luxemburg/Casco Intermediate School District	MS-1 Transportation - Luxemburg/Casco Intermediate School District
Emergency Operations Management			
Mobilization	1a1		
Facilities	1b1		
Direction and Control	1c1		
Communications Equipment	1d1	M	M
Equipment and Supplies to Support Operations	1e1	M	
Protective Action Decision-Making			
EW Exposure Control Decisions	2a1		
PARs	2b1		
PADs	2b2		
PADs for Disabled/Functional Needs	2c1		
Ingestion PADs	2d1		
RRR Decisions	2e1		
Protective Action Implementation			
EW Exposure Control Implementation	3a1	M	P (State)
KI Public/Institutionalized	3b1		
PAD Implementation Disabled/Functional Needs	3c1		
PAD Implementation Schools	3c2		
TACP Establishment	3d1		
Impediments	3d2		
Implement Ingestion PADs	3e1		
Ingestion Pathway Decisions	3e2		
Implementation of RRR Decisions	3f1		
Field Measurement and Analysis			
RESERVED	4a1		
Field Team Management	4a2		
Field Team Operations	4a3		
Field Team Sampling	4b1		
Laboratory Operations	4c1		
Emergency Notification and Public Info			
Initial Alert & Notification	5a1		
RESERVED	5a2		
Backup Alert & Notification	5a3		
Exception Area Alerting	5a4		
Subsequent Information & Instructions	5b1		
Support Operations and Facilities			
Reception Center Operations	6a1		
EW Monitoring & Decontamination	6b1		
Congregate Care	6c1		
Contaminated Injured – Transport & Care	6d1		M

Table 3.2.5 – Summary of Exercise Evaluation – Manitowoc County

DATE: June 11, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Initial Warning Point	EOC	JIC County PIO	EAS Radio Station WOMT
Emergency Operations Management					
Mobilization	1a1	M	M	M	
Facilities	1b1				
Direction and Control	1c1		M	M	
Communications Equipment	1d1	M	M		M
Equipment and Supplies to Support Operations	1e1		M		
Protective Action Decision-Making					
EW Exposure Control Decisions	2a1		M		
PARs	2b1				
PADs	2b2		M		
PADs for Disabled/Functional Needs	2c1		M		
Ingestion PADs	2d1				
RRR Decisions	2e1				
Protective Action Implementation					
EW Exposure Control Implementation	3a1		M		
KI Public/Institutionalized	3b1		M		
PAD Implementation Disabled/Functional Needs	3c1				
PAD Implementation Schools	3c2				
TACP Establishment	3d1		M		
Impediments	3d2		M		
Implement Ingestion PADs	3e1				
Ingestion Pathway Decisions	3e2				
Implementation of RRR Decisions	3f1				
Field Measurement and Analysis					
RESERVED	4a1				
Field Team Management	4a2				
Field Team Operations	4a3				
Field Team Sampling	4b1				
Laboratory Operations	4c1				
Emergency Notification and Public Info					
Initial Alert & Notification	5a1		M		M
RESERVED	5a2				
Backup Alert & Notification	5a3				
Exception Area Alerting	5a4				
Subsequent Information & Instructions	5b1		M		
Support Operations and Facilities					
Reception Center Operations	6a1				
EW Monitoring & Decontamination	6b1				
Congregate Care	6c1				
Contaminated Injured Transport & Care	6d1				

Table 3.2.6 – Summary of Exercise Evaluation – Manitowoc County

Out-of-Sequence Activities

DATE: June 10, 2019, 2019 SITE: Point Beach Nuclear Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Dosimetry Distribution Point County Hwy	TACP – Reception Center	Dosimetry Distribution Point County Hwy Department
Emergency Operations Management				
Mobilization	1a1			
Facilities	1b1			
Direction and Control	1c1			
Communications Equipment	1d1	M	M	M
Equipment and Supplies to Support Operations	1e1	M	M	
Protective Action Decision-Making				
EW Exposure Control Decisions	2a1			
PARs	2b1			
PADs	2b2			
PADs for Disabled/Functional Needs	2c1			
Ingestion PADs	2d1			
RRR Decisions	2e1			
Protective Action Implementation				
EW Exposure Control Implementation	3a1	M	M	M
KI Public/Institutionalized	3b1			
PAD Implementation Disabled/Functional Needs	3c1			
PAD Implementation Schools	3c2			
TACP Establishment	3d1		M	
Impediments	3d2			
Implement Ingestion PADs	3e1			
Ingestion Pathway Decisions	3e2			
Implementation of RRR Decisions	3f1			
Field Measurement and Analysis				
RESERVED	4a1			
Field Team Management	4a2			
Field Team Operations	4a3			
Field Team Sampling	4b1			
Laboratory Operations	4c1			
Emergency Notification and Public Info				
Initial Alert & Notification	5a1			
RESERVED	5a2			
Backup Alert & Notification	5a3			
Exception Area Alerting	5a4			
Subsequent Information & Instructions	5b1			
Support Operations and Facilities				
Reception Center Operations	6a1			
EW Monitoring & Decontamination	6b1			
Congregate Care	6c1			
Contaminated Injured	6d1			M

This page is intentionally blank

3.3 JURISDICTIONAL SUMMARY OF EXERCISE EVALUATION RESULTS

The following sections present narrative summaries that describe observations made during the exercise pursuant to the Evaluation Criteria and Core Capabilities demonstrated at each jurisdiction's response locations. Narrative summaries are organized by Jurisdiction, Location, Assessed Core Capability, and the Evaluation Criterion discussed in the Appendix E Extent-of-Play Agreements. The results of the assessments are summarized in Tables 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5 and 3.2.6.

3.3.1 State of Wisconsin

3.3.1.1 State Initial Warning Point – DOT - Traffic Management Center

Criterion 1.a.1 – Core Capability: Operational Communications
Criterion 1.b.1 - Core Capability: Facilities
Criterion 1.d.1 – Core Capability: Operational Communications

3.3.1.2 SEOC

Criterion 1.a.1 – Core Capability: Operational Communications
Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.c.1 - Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

3.3.1.3 State Radiological Coordinator Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 - Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.c.1 - Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

3.3.1.4 Forward Ops Center - Mobile Radiological Lab

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 4.c.1 – Core Capability: Environmental Response/Health and Safety

3.3.1.5 Restricted Area Field Team #1

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 4.a.3 – Core Capability: NA

3.3.1.6 Restricted Area Field Team #2

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 4.a.3 – Core Capability: NA

3.3.1.7 State Liaison - Kewaunee County Emergency Operations Center

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 5.a.1– Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Communications

3.3.1.8 State Liaison - Manitowoc County Emergency Operations Center

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 5.a.1– Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Communications

3.3.1.9 JIC – Media Center

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operation Communications

3.3.1.10 Public Inquiry Hotline/State PIO – WDIAL/Media Room

Criterion 1.a.1 – Core Capability: Operational Communications
Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operation Communications

3.3.1.11 Holy Family Hospital - Medical Services – Facility

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 6.d.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public Health and Medical Services

3.3.1.12 Luxemburg/Casco Intermediate School District – EVAC/EW Mon/Decon

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 6.b.1 – Core Capability: Environmental Response/Health and Safety

3.3.1.13 Luxemburg/Casco Intermediate School – EW Veh/ Equip Mon/Decon

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 6.b.1 – Core Capability: Environmental Response/Health and Safety

3.3.1.14 Aurora Bay Care Medical Center - Medical Services – Facility

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 6.d.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public Health and Medical Services

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the State of Wisconsin is as follows:

a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: Two Plan Issues – Restricted Area Field Team #1 and Luxemburg/Casco Intermediate School District – EVAC/EW Mon/Decon (See Section 3.3.1.5, Criterion 4.a.3/Section 3.3.1.12, Criterion 3.a.1 and Appendix A)

e. PRIOR ISSUES – RESOLVED: NONE

f. PRIOR ISSUES – UNRESOLVED: NONE

This page is intentionally blank.

3.3.2 Kewaunee County

3.3.2.1 Initial Warning Point

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

3.3.2.2 EOC

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 3.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public and Private Services and Resources

Criterion 3.c.2 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: On-Scene Security and Protection

Criterion 3.d.2 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: Infrastructure Systems

Criterion 5.a.1– Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

3.3.2.3 TACP - After Dosimetry Briefing

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: On-Scene Security and Protection

3.3.2.4 JIC - Kewaunee County PIO

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Communications

3.3.2.5 EAS Radio Station - WDOR Sturgeon Bay

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 5.a.1– Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

3.3.2.6 Dosimetry Distribution Point - Luxemburg/Casco Intermediate School District

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

3.3.2.7 MS-1 Transportation - Luxemburg/Casco Intermediate School District

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 6.d.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public Health and Medical Services

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the Kewaunee County is as follows:

a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES – RESOLVED: NONE

f. PRIOR ISSUES – UNRESOLVED: NONE

This page is intentionally blank.

3.3.3 Manitowoc County

3.3.3.1 Initial Notification Point

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

3.3.3.2 EOC

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination
Core Capability: Intelligence and Information Sharing
Core Capability: Environmental Response/Health and Safety
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 2.c.1 - Core Capability: Operational Coordination
Core Capability: Operational Communications
Core Capability: Situational Assessment

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 3.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public and Private Services and Resources

Criterion 3.d.1 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: On-Scene Security and Protection

Criterion 3.d.2 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: Infrastructure Systems

Criterion 5.a.1– Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

3.3.3.3 TACP - Manitowoc County Reception Center

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination
Core Capability: Critical Transportation
Core Capability: On-Scene Security and Protection

3.3.3.4 JIC - Manitowoc County PIO

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning
Core Capability: Operational Communications

3.3.3.5 EAS Radio Station - WOMT Manitowoc

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 5.a.1 – Core Capability: Public Information and Warning
Core Capability: Operational Coordination
Core Capability: Operational Communications

3.3.3.6 Dosimetry Distribution Point - Manitowoc County Highway Department

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
Core Capability: Mass Care Services
Core Capability: Public & Private Services and Resources
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

3.3.3.7 MS-1 Transportation - Manitowoc Fire Department

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 3.a.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety

Criterion 6.d.1 – Core Capability: Operational Coordination
Core Capability: Environmental Response/Health and Safety
Core Capability: Public Health and Medical Services

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the Manitowoc County is as follows:

a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES – RESOLVED: NONE

f. PRIOR ISSUES – UNRESOLVED: NONE

SECTION 4: Conclusion

Based on the results of the June 11, 2019, the PBNP REP Full-Participation Plume Exposure Pathway Exercise, the offsite radiological emergency response plans and preparedness for the State of Wisconsin and Kewaunee and Manitowoc Counties, site-specific to the PBNP, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

This page is intentionally blank

APPENDIX A: Improvement Plan

This appendix summarizes the results from the of the evaluation of all jurisdictions and functional entities that participated in the June 11, 2019, PBNP Full-Participation, Plume, REP Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile and 50-mile EPZ's surrounding the PBNP, recommended corrective actions, and a schedule of corrective actions for the identified primary responsible agency.

Plan Issue: 49 -19-3a1-001 ORO: Luxemburg Casco Intermediate School District Criterion: 3.a.1

CONDITION:

Per the dosimetry briefing (https://www.youtube.com/watch?v=Bp6zdDAU92U&feature=youtu.be), the graphic at 2:11 seconds states, "On your low Range Dosimeter (White Label) - Any Change of 100 mR in One Hour MUST BE REPORTED. - Any Change of 200 mR in One Hour MEANS TURN BACK. At 2:28 seconds in the video, the briefer recommends, "However, for your safety, if either pencil dosimeter shows any movement, immediately alert your supervisor." The graphic at 2:48 seconds states, "The Administrative Exposure Limit for Emergency Workers is 2 R or 2000 mR." Without a means to re-zero the low-range dosimeter between readings, deployed emergency workers are neither trained nor equipped to determine whether they have reached their exposure limits or comply with the reporting requirements.

Per both State and local plans and procedures, and the Radiological Emergency Preparedness [REP] Emergency Worker Handbook, Dose & Exposure Limits on pages 12 and 13, radiological emergency worker exposure limits (i.e. tactical-level field decision points) are stated in Roentgen per hour (R/hr.) or Roentgen equivalent man per hour (Rem/hr.). Emergency workers are only provided direct reading dosimeters (DRDs) which indicate cumulative exposure in Roentgen (R). Per the Radiological Emergency Preparedness [REP] Emergency Worker Handbook, Dose & Exposure Limits on page 12, "Note: for the purpose of tracking exposure in the REP program: 1 Roentgen = 1 Rem," an approximation based on EPA 400/R-17/001, PAG manual recommendations. However, given standard issue emergency worker direct-reading dosimetry, real-time calculation of actual exposure rate is impossible, and calculation of average exposure rate requires additional equipment and skills which are not available to non-technical, tactical-level, just-in-time trained responders who are only equipped with DRDs.

As demonstrated though interview with actual emergency workers, upon referring to the "Exposure Rate / Dose Rate Guidelines" table on page 13 of the Emergency Worker Handbook, the consensus of the participating emergency workers was that if their low-range dosimeter indicated a cumulative exposure of 200 mR, they "Should not proceed unless otherwise directed to by supervisor." Although their interpretation errors on the side of safety, if emergency workers unnecessarily disrupt protective action implementation and health/safety missions due to confusion about their exposure limits, the general public's health and safety would be negatively impacted.

POSSIBLE CAUSE: Per conversation with Wisconsin Department of Health Services technical staff, the intent of the current guidance is to minimize emergency worker exposure. The current guidance appears tailored to specially trained, professional responders equipped with alarming electronic personal dosimetry (e.g. Radiological Field teams, HAZMAT Teams, SWAT Teams, etc.). However, the required equipment, training, and skills are not available to non-technical, tactical-level, just-in-time trained responders equipped with only DRDs.

REFERENCE: FEMA P-1028, REP Program Manual, Part I, Section F.3 Protective Action Guides, b. Emergency Workers;

Part II, Section D.11 Planning Standard K – Radiological Exposure Control, NUREG Criteria K-1, K-2, K-3, K-4; Part III, Section C Exercise Demonstration, Sub-elements 1.e, 2.a, & 3.a.

NUREG-0654/FEMA-REP-1, Rev 1, Planning Standard K-1, K-2, K-3, & K-4

Environmental Protection Agency (EPA) Manual of Protective Action Guides (PAGs) and Protective Actions for Nuclear Incidents (EPA 400/R-17/001), Chapter 3, Emergency Worker Protection

FEMA Deputy Assistant Director, Preparedness, Training and Exercise Directorate, Memorandum of June 25, 1994, Subj: Environmental Protection Agency's (EPA) Manual of Protective Action Guides (PAGs) and Protective Actions for Nuclear Incidents (EPA 400-R-92-001)

EFFECT: As demonstrated though interview with actual emergency workers, upon referring to the "Exposure Rate / Dose Rate Guidelines" table on page 13 of the Emergency Worker Handbook, the consensus of the four participating emergency workers was that if their low-range dosimeter indicated a cumulative exposure of 200 mR, they "Should not proceed unless otherwise directed to by supervisor." An emergency worker exposed to 60 mR for two hours and 90 mR for one hour, would have a cumulative exposure of 210 mR. Without a dosimeter charger to re-zero dosimeters between readings, the low-range dosimeter would indicate above the 200 mR scale and the high-range dosimeter would not have moved a quarter of the first graduation on the 20 R scale. Per the plans and procedures, none of the above conditions would be reportable, but the emergency workers all believed that they should not proceed otherwise directed by proper authority. Although their interpretation errors on the side of safety, emergency workers unnecessarily disrupting protective action implementation and health/safety missions creates repercussions which would negatively impact the general public's health and safety.

Per the dosimetry briefing (https://www.youtube.com/watch?v=Bp6zdDAU92U&feature=youtu.be) graphic at 2:48 seconds, "The Administrative Exposure Limit for Emergency Workers is 2 R or 2000 mR." Based on the recommended administrative correction factor of 5, the stated Protective Action Guideline for "all occupational exposure" would be 10 rem vs, the 5 rem as recommended in EPA 400/R-17/001, Table 3-1 Emergency Worker Guidelines.

RECOMMENDATION: Per FEMA P-1028, Radiological Emergency Preparedness Program Manual (RPM), Part II, NUREG Criterion K.3.a, b. Dosimeters on pg. 110: "Since the dose that emergency workers read on their DRDs in units of R is not directly comparable to the TEDE administrative dose limits they are given in units of rem, any discussion of a recommended system or a minimum acceptable system for dosimetry needs to be coupled with the methodology adopted by the State for the conversion of DRD readings into estimated TEDE. The dosimetry OROs issue to emergency workers must be capable of measuring dose in the appropriate range to allow emergency workers to determine whether they have reached the administrative limits."

For emergency workers who are only issued DRDs indicating in Roentgen, based on EPA 400/R-17/001, Table 3-1 Emergency Worker Guidelines and an administrative correction factor of 5, exposure limits of 1, 2, & 5 R would correspond to the 5, 10, & 25 rem protective action guidelines. Establishing turn-back limits at 50% of the exposure limits would provide an opportunity for those emergency workers to exit the contaminated area before exceeding their authorized exposure limits.

For emergency workers who are equipped with alarming electronic personal dosimetry indicating in rem, establishing turnback limits at 50% of the EPA 400/R-17/001, Table 3-1 Emergency Worker Guidelines, would provide an opportunity for those emergency workers to exit the contaminated area

<table>
<tr><td colspan="2">before exceeding their authorized protective action guidelines. Establishing an exposure rate alarm could also warn emergency workers of their proximity to high-level sources. However, the likelihood of encountering high-level sources off-site during the early phase of a nuclear power plant plume exposure pathway event would probably be low.</td></tr>
<tr><td colspan="2">SCHEDULE OF CORRECTIVE ACTIONS: Completed by October 2019.</td></tr>
<tr><td colspan="2">CORRECTIVE ACTION DESCRIPTION: Procedural clarification in the use of dose/exposure rate management for medical transportation emergency workers will be updated in the Wisconsin Radiological Incident Response Plan Volume 4, Reception Center Operations and Medical Support, and in the use of the REP Emergency Worker Handbook.</td></tr>
<tr><td>CAPABILITY:</td><td>PRIMARY RESPONSIBLE AGENCY:
Wisconsin DHS/Radiation Protection</td></tr>
<tr><td>CORE CAPABILITY ELEMENT:

REP ASSESSMENT AREA: 3.a.1</td><td rowspan="2">DATE COMPLETED:
October 2019. Once completed, the Plan Issue will be considered cleared.</td></tr>
<tr><td>AGENCY POC: Ramona Baldoni-Lake</td></tr>
</table>

Plan Issue: 49 -19-4a3-002 ORO: Wisconsin Department of Health Services Criterion: 4.a.3

CONDITION: Counting of the air sample media did not take place. Additionally, the count rate on the Ludlum Model 12 (set up to measure activity) began to increase (by controller inject), team members weren't able to obtain an exposure rate reading or dose rate reading from that instrument.	
POSSIBLE CAUSE: The Radiological Incident Response Plan, Volume Three, Procedure 4.6.4 did not include steps for the counting of the air sample media. As for the Ludlum Model 12, the only instrument with an audible capability, was set up to measure activity, team members weren't able to obtain an exposure rate reading or dose rate reading from that instrument.	
REFERENCE: Wisconsin Department of Health Services Radiological Incident Response Plan, Volume Three, Field Team Operations, NUREG-0654/FEMA-REP-1, I.8.	
EFFECT: The absence of the counting of the air sample media could result in a delay in the detection of iodine-131 in the plume. As for the Ludlum Model 12 used to measure activity, the inability of team members to be able to promptly obtain an exposure rate reading or dose rate reading from the only instrument with an audible capability delayed team members from determining whether or not they had reached their exposure rate and dose rate limits.	
RECOMMENDATION: Add to Procedure 4.6.4 the steps from Procedure 4.3.3 for the counting of the air sample media. As for measuring activity, use a survey instrument or electronic dosimeter with the capability of providing an exposure rate or dose rate and with an audible and/or alarm capability.	
SCHEDULE OF CORRECTIVE ACTIONS: Corrections will be updated and completed by the next scheduled plan review submittal.	
CORRECTIVE ACTION DESCRIPTION: Corrections will address the Procedures 4.6.4 and 4.3.3 as noted in the recommendation.	
CAPABILITY:	**PRIMARY RESPONSIBLE AGENCY:** Wisconsin DHS/Radiation Protection
CORE CAPABILITY ELEMENT: **REP ASSESSMENT AREA:** 4.a.3	**DATE COMPLETED:**
AGENCY POC: Charles Adams	

APPENDIX B: Exercise Timeline

Date and Site: June 11, 2019 Point Beach Nuclear Plant

Emergency Classification Level or Event	**Time Utility Declared**	**NOTIFICATION OR ACTION**			
		SEOC	Wisconsin JIC	Manitowoc County EOC	Kewaunee County EOC
Unusual Event	**0811 CDT**	0822 CDT	N/A	0850 CDT	0846 CDT
Alert	**0940 CDT**	0944 CDT	0654 CDT	0959 CDT	1006 CDT
Site Area Emergency	**1115 CDT**	1128 CDT	1132 CDT	1133 CDT	1130 CDT
General Emergency	**1158 CDT**	1221 CDT	1222 CDT	1225 CDT	1224 CDT
Notification Radiation Release Started	**1158 CDT**	1221 CDT	1145 CDT	1225 CDT	1224 CDT
Facility Declared Operational		1055 CDT	1038 CDT	1022 CDT	1046 CDT
Declaration of State Emergency		1149 CDT	1209 CDT	1015 CDT	1142 CDT
Exercise Terminated		1359 CDT	1356 CDT	1356 CDT	1355 CDT
Early Informational Message - PBNP Notice of Incident		1045 CDT	1051/1100 CDT	1028 CDT	1046 CDT
1st Early Precautionary Action Decision – State: Restrict Hunting and Fishing		1145 CDT	1145 CDT	N/A	N/A
Evacuate Schools		N/A	1147 CDT	1131 CDT	N/A
Place animals on stored feed and protected water out to 5 -miles [AG Advisory}		1135 CDT	1136 CDT	1130 CDT	1135 CDT
2nd Early Precautionary Action Decisions – Counties:		N/A	N/A		
Air Restrictions:		N/A	N/A	1258 CDT	1052 CDT
Rail Restrictions:		N/A	N/A	1300 CDT	N/A
Water Restrictions:		N/A	1307 CDT	1300 CDT	1051 CDT

1st Protective Action Recommendation:	1223 CDT	1220 CDT	1225 CDT	1224 CDT
2nd Protective Action Recommendation:	1235 CDT	1233 CDT	1233 CDT	1233 CDT
1st Protective Action Decision:	N/A	1243 CDT	1240 CDT	1240 CDT
1st Siren Activation	N/A	1243 CDT	1250 CDT	N/A
1st EAS Message	N/A	1243 CDT	1253 CDT	1255 CDT
KI Administration Decision:	1240 CDT	1240 CDT	1240 CDT	1240 CDT

LEGEND: NA = ECL/Event/Action Not Applicable at Location

APPENDIX C: Exercise Evaluation Team

SITE: Point Beach Nuclear Plant

EXERCISE DATES: June 11, 2019

Exercise Management	Name	Agency/ Organization
Chair, Regional Assistance Committee	Sean O'Leary	DHS/FEMA
Exercise Director	Dwaine Warren	DHS/FEMA
Assistant Exercise Director	Stephen Tulley	DHS/FEMA
State of Wisconsin Site Specialist	James King	DHS/FEMA
Team Leader – State of Wisconsin	Alvin Blake	DHS/FEMA
Team Leader – Kewaunee County	Edward Diaz	DHS/FEMA
Team Leader – Manitowoc County	Todd Gemskie	DHS/FEMA
Contractor Evaluator Support – Regional Coordinator	John Wills	ICF
Contractor Administrative Support	Christy Bennett	ICF

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
State of Wisconsin		
Wisconsin – DOT – Initial Warning Point	Karl Rabenhorst	DHS/FEMA
Wisconsin – SEOC	Don Daniel	DHS/FEMA
Wisconsin – SEOC	Richard Smith	ICF
Wisconsin – State Radiological Coordinator Room	David Stuenkel	ICF
Wisconsin – Forward Operations Center - Mobile Radiological Laboratory	John Wills	ICF
Wisconsin – Restricted Area Field Team #1	Cheryl Weaver	ICF
Wisconsin – Restricted Area Field Team #2	Marynette Herndon	ICF
Wisconsin – State Liaisons – Kewaunee County EOC	Edward Diaz	DHS/FEMA
Wisconsin – State Liaisons – Manitowoc County EOC	Paul Nied	ICF
Wisconsin – JIC – Operations/Media Center	Margaret Swearingen	ICF
Wisconsin – Public Inquiry Hotline/State PIO – WDIAL/Media Center	Michael Meshenburg	ICF

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
State of Wisconsin – Out-of-Sequence		
Manitowoc County – MS-1 Hospital – Holy Family Hospital	Thomas Gahan	ICF

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
Kewaunee County		
Kewaunee County – Initial Warning Point	John Wiecjorek	ICF
Kewaunee County – EOC	Margaret Swearingen	ICF
Kewaunee County – EOC	Kim Alahmadi	DHS/FEMA
Kewaunee County – EOC	Katie Boyce	DHS/FEMA
Kewaunee County – TACP – After Dosimetry Briefing	John Wiecjorek	ICF
Kewaunee County – JIC – County PIO	P.J. Neid	ICF
Kewaunee County – EAS – WDOR Radio Station	Carl Bebrich	DHS/FEMA

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
Kewaunee County – Out-of-Sequence		
Kewaunee County – School – Dosimetry Distribution Point – Luxemburg/Casco Intermediate School District	Katie Boyce	DHS/FEMA
Kewaunee County – School –MS-1 Drill - Transportation – Luxemburg/Casco Intermediate School District	Karl Rabenhorst	DHS/FEMA

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
Manitowoc County		
Manitowoc County – Initial Warning Point	David Persaud	DHS/FEMA
Manitowoc County – EOC	Lynn Steffenson	ICF
Manitowoc County – EOC	Thomas Gahan	ICF
Manitowoc County – EOC	Brett Beardsley	DHS/FEMA
Manitowoc County – JIC – County PIO	P.J. Neid	ICF
Manitowoc County – EAS – WOMT Radio Station	David Persaud	DHS/FEMA

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
Manitowoc County – Out-of-Sequence		
Manitowoc County – Dosimetry Distribution Point – Highway Department	Cheryl Weaver	ICF
Manitowoc County – TCP/ACP – Reception Center	Karl Rabenhorst	DHS/FEMA
Manitowoc County – MS-1 Drill Transportation – Fire Department	Carl Bebrich	DHS/FEMA

APPENDIX D: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
AAA	Area Agency on Aging
AAR	After Action Report
ABMC	Aurora BayCare Medical Center
Ag	Agricultural
ANS	Alert and Notification System
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
AuxComm	Auxillary Communications
Bk/Up	Backup
CAP	Civil Air Patrol
CDT	Central Daylight Time
CCC	Congregate Care Center
CD V	Civil Defense Victoreen
CDE	Committed Dose Equivalent
CE	County Engineer
CEDE	Combined Effective Dose Equivalent
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CHJCF	Cuyahoga Hills Juvenile Correctional Facility
cpm	counts per minute
cm	centimeter
Cs	Cesium
DAG	Dose Assessment Group
DATCP	Department of Agriculture/Consumer Protection
DC	Dosimetry Coordinator
DES	Department of Emergency Services
DHS	Department of Homeland Security
DMA	Department of Military Affairs
DOE	Department of Energy
DOT	Department of Transportation
DPM	Department of Public Safety
DPS	Disaster Preparedness Specialist
DRD	Direct Reading Dosimeter
DRF	Dosimetry Report Form
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level

ACRONYM	DESCRIPTION
ED	Emergency Department
EDL	Executive Discussion Line
EMA	Emergency Management Agency
EMNet	Emergency Network
EMD	Emergency Management Director
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
EOC	Emergency Operation Center
EOF	Emergency Operations Facility
EPD	Electronic Personal Dosimeter
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ER	Executive Room
ESD	Emergency Support Director
ESF	Emergency Support Function
ETE	Evacuation Time Estimate
EW	Emergency Worker
EWDC	Emergency Worker Decontamination Center
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMTC	Field Monitoring Team Coordinator
FMT(s)	Field Monitoring Team(s)
FOC/MRL	Forward Operating Command/Mobile Radiological Laboratory
g	gram(s)
GE	General Emergency (Emergency Classification Level)
GETS	Government Telecommunications System
GHz	GigaHertz
GIS	Geographical Information System
GM	Geiger-Mueller
gpm	gallons per minute
GPS	Global Positioning System
HEPA	High Efficiency Particulate Air
HFMC	Holy Family Medical Center
IC	Incident Commander
INF	Initial Notification Form
INP	Initial Notification Point
IP	Improvement Plan
IWP	Initial Warning Point
JDC	Joint Dispatch Center
JIC	Joint Information Center
JIS	Joint Information System

ACRONYM	DESCRIPTION
JIT	Just In Time (training)
KI	Potassium Iodide
LEADS	Law Enforcement Automated Data System
LEC	Law Enforcement Coordinator
LPM	Liters Per Minute
M/D	Monitoring/Decontamination
MARCS	Multi-Agency Radio Communications System
NARS	Nuclear Accident Reporting System
MIDAS	Meteorological Information Dose Assessment System
µCi/hr	micro (10^{-6}) Curies per hour
µCi/ml	micro (10^{-6}) Curies per milliliter
mg	milligram
MHz	Megahertz
min	minute(s)
MPH/mph	miles per hour
µR	micro (10^{-6}) R/micro Roentgen
mR	milliRoentgen
mR/hr	milliRoentgen/hr
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
NWS	National Weather Service
OIC	Officer-In-Charge
OSLD	Optically Stimulated Luminescence Dosimeter
PAD	Protective Action Decision
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PBNP	Point Beach Nuclear Plant
PDAFNs	Persons with Disabilities and Access/Functional Needs
PD	Police Department
PDP	Personal Dosimetry Packet
PIO	Public Information Officer
PPE	Personal Protective Equipment
ppm	parts per million
PRD	Permanent Record Dosimeter
R	Roentgen
RAC	Regional Assistance Committee
RADEF	Radiological Defense
RAFT	Restricted Area Field Team
RC	Reception Center
RCM	Reception Center Manager

ACRONYM	DESCRIPTION
RCS	Reactor Containment System
RDT	Radiological Disaster Team
REA	Radiological Emergency Area
REACT/TS	Radiological Emergency Assistance Center/Technical Support
rem	radiation exposure man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RIMC	Radiological Instrumentation, Maintenance and Calibration
RO	Radiological Officer
RSO	Radiological Safety Officer
SAE	Site Area Emergency (Emergency Classification Level)
SDC	Sheriff's Dispatch Center
SEOC	State Emergency Operations Center
SIB	Special Information Bulletin
SIP	Shelter-in-Place
SNB	Special News Bulletin
SO	Sheriff's Office
SOG	Suggested Operating Guideline/Standard Operating Guideline
SOP	Standard Operating Procedure
SRC	State Radiological Coordinator
SSS	Sample Screening Station
TACP	Traffic and Access Control Point
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
THD	Technological Hazards Division
TLD	Thermo-luminescent Dosimeter
TS	Transportation Supervisor
UE	Unusual Event (Emergency Classification Level)
UHF	Ultra-High Frequency
USCG	United States Coast Guard
VHF	Very High Frequency
VOAD	Voluntary Organizations Active in Disaster
VoIP	Voice over Internet Protocol
WEM	Wisconsin Emergency management
WENS	Wireless Emergency Notification System
WiFi	Trade name for "IEEE 802.11x Direct Sequence" wireless network connectivity operating on 2.4GHz or 5GHz radio frequencies.

This page is intentionally blank

APPENDIX E: Extent-of-Play Agreements

STATE OF WISCONSIN

AND

KEWAUNEE, AND MANITOWOC COUNTIES

POINT BEACH NUCLEAR PLANT
RADIOLOGICAL EMERGENCY PREPAREDNESS
FULL PARTICIPATION
PLUME EXPOSURE PATHWAY EXERCISE

JUNE 11, 2019

1. PURPOSE

This Extent of Play Agreement identifies the conditions that will be used to develop, conduct, control, and evaluate the 2019 Point Beach Nuclear Plant Plume Pathway Full Scale Exercise as agreed to by Wisconsin Emergency Management, Wisconsin Department of Health Services, Radiation Protection Section, Manitowoc County Emergency Services, Kewaunee County Emergency Management and Point Beach Nuclear Plant.

2. EXECUTIVE SUMMARY

The 2019 Point Beach Nuclear Plant Plume Pathway Full-Scale Exercise (June 11, 2019) is designed to establish a learning environment for players to exercise and evaluate their plans and procedures and to review actions related to response to an incident involving the release of radiological materials and the repercussions within the 10-mile Emergency Planning Zone (EPZ), at the Point Beach Nuclear Plant. Exercise play is scheduled until exercise objectives have been met at each participating venue.+

3. IDENTIFIED EXERCISE OBJECTIVES AND CORE CAPABILITIES

Exercise Objective	Aligned Core Capability
ASSESSMENT AREA 1 – EMERGENCY OPERATIONS MANAGEMENT	
<u>Sub-element 1.a – Mobilization</u> **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to alert, notify, and mobilize emergency personnel, and activate and staff emergency facilities. **Criterion 1.a.1:** OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654/FEMA-REP-1, A.1.a, e; A.3, 4; C.1,4, 6; D.4; E.1, 2; G.3.a; H.3, 4) **EXTENT OF PLAY:** The State of Wisconsin, Manitowoc and Kewaunee County Emergency Operation Centers, and the Joint Information Center (JIC) will be notified per procedure and will respond when called. State and County EOCs will not be pre-positioned. Field monitoring teams will be pre-positioned. 24-hour staffing rosters will be available upon request. Special arrangements regarding staffing are as follows: • The Wisconsin Emergency Management Regional Directors and their Office Program Associates will be pre-positioned in the vicinity of the Kewaunee and Manitowoc EOCs and will be instructed to report to the County EOCs ~10 minutes after initial notification of activation of the State of Emergency Operations Center (SEOC). • State Joint Information Center (JIC) staff will be pre-positioned in the area of the JIC in Green Bay and will be notified by the WEM Public Information Officer and/or RAVE Alert to report to the JIC when the Alert ECL is declared. They will wait ~10 minutes after notification before reporting to the JIC. The JIC is located at 3060 Voyager Drive, in Green Bay, Wisconsin.	Operational Communications

• Manitowoc and Kewaunee County JIC staff will also be pre-positioned near the JIC in Green Bay and arrive in a staggered order. • The public inquiry hotline Wisconsin Disaster Information Assistance Line (WI-DIAL) is located at Department of Military Affairs, Wisconsin Emergency Management, 2400 Wright St., Madison. WI-DIAL staff will be notified in person or via RAVE Alert and will report to the WI-DIAL room. • Forward Operating Center/Mobile Response Lab (FOC/MRL) and Field Teams will be pre-positioned at the Manitowoc Highway Department and will be mobilized when needed and requested. They will receive alert via RAVE, the Field Response Manager (FRM) will be notified via call from the SRC, and Field Teams will be notified by the FRM to mobilize. • State Radiological Coordinator (SRC) room staff will be pre-positioned in the DMA break room and/or parking lot. The SRC will be pre-staged in DMA break room awaiting notification via pager. The SRC will alert and determine availability of staff via the RAVE system. The SRC will then notify and mobilize staff to report to assigned duty stations.	
Sub-element 1.b – Facilities **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have facilities to support the emergency response. **Criterion 1.b.1:** Facilities are sufficient to support the emergency response. (NUREG-0654/FEMA-REP-1, G.3.a; H.3; J.10.h; J.12; K.5.b) **EXTENT OF PLAY:** The specifics in each facility will vary with organizational plans. Controlled access, if necessary, will be carried out per established procedures. Entry to the Department of Military Affairs (DMA) facility will be facilitated in accordance with DMA security protocol for entry and accountability. Exercise participants, observers, controllers, and evaluators will be asked to wear ID badges or vests, as appropriate. The SEOC as well as the SRC room was established and evaluated for record in 2017 and will therefore, not be evaluated in 2019. The Forward Operations Center (FOC)/Mobile Response Lab (MRL), Joint Information Center (JIC), Manitowoc County EOC, and Kewaunee County EOC have not had any substantial change that has a direct effect or impact on emergency response operations performed in these facilities. As of **May 1st, 2019,** the Traffic Management Center (TMC) in Milwaukee has assumed the role of State Warning Point 1, which answers the nuclear phones on behalf of Wisconsin Emergency Management. The TMC facility will be evaluated during the exercise.	
Sub-element 1.c – Direction and Control	Operational Coordination

INTENT: This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to control their overall response to an emergency. **Criterion 1.c.1:** Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG-0654/FEMAREP-1, A.1.d; A.2.a, b; A.3; C.4, 6) **EXTENT OF PLAY:** Offsite response organizations will demonstrate the capability to direct and control the overall response effort with their areas of responsibility as outlined in the Plan.	Operational Communications Situational Assessment
Sub-element 1.d – Communications Equipment **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs establish and operate reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as contiguous governments within the EPZ, Federal emergency response organizations, the licensee and its facilities, EOCs, Incident Command Posts, and FMTs. **Criterion 1.d.1:** At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654/FEMA-REP-1, F.1, 2) **EXTENT OF PLAY:** Primary communication systems will be demonstrated. If primary communication systems fail, secondary systems can be demonstrated. These include; EMNet phones, commercial telephones, cell phones, satellite phones, and ARES/RACES.	Operational Communications
Sub-element 1.e – Equipment and Supplies to Support Operations **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have emergency equipment and supplies adequate to support the emergency response. **Criterion 1.e.1:** Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations (NUREG-0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b) **EXTENT OF PLAY:** Maps, displays and other necessary equipment and supplies will be utilized at the state and county EOCs as well as other appropriate locations, such as the JIC. Monitoring instruments will be utilized at locations within the 10-mile EPZ including the FOC/MRL and Field Monitoring teams. If a decision to use Potassium Iodide (KI) for emergency workers is made, enough	Environmental Response/Health and Safety Mass Care Services Public & Private Services and Resources Public Health & Medical Services

quantities and appropriate instructions for use will be made available. The ingestion of KI by emergency workers will be simulated. KI for field monitoring teams is available in the field team kits and at the FOC/MRL at the Manitowoc County Highway Department. KI for Manitowoc and Kewaunee County emergency workers is stored at their respective EOCs and can be delivered to the reception centers in accordance to their plans, this activity will be simulated for the exercise. KI is not available for the general public.	
ASSESSMENT AREA 2 – PROTECTIVE ACTION DECISION-MAKING	
Sub-element 2.a.1 – Emergency Worker Exposure Control **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions. Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration TEDE or organ-specific limits) identified in the ORO's plans/procedures. **Criterion 2.a.1:** OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides (PAGs). (NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4) **EXTENT OF PLAY:** FOC/MRL field team workers and emergency workers will be provided appropriate dosimetry as needed and will follow plans and procedures regarding the use of dosimetry, issuance of Potassium Iodide (KI) and emergency worker exposure guidelines and limits. Should an evacuation of the FOC/MRL be ordered as a protective decision, this evacuation will be simulated by interview. Demonstration through interview can occur regarding exceeding emergency worker exposure limits at the FOC/MRL location. The taking of KI is also simulated.	Operational Coordination Environmental Response/Health and Safety Situational Assessment
Sub-element 2.b.1 – Radiological Assessment, Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.	Operational Coordination Intelligence & Information Sharing Environmental Response/Health and Safety Operational Communications

OROs must have the capability to choose among a range of protective actions those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and other criteria, such as plant conditions, licensee PARs, coordination of precautionary and/or protective action decisions with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort that create higher than normal risk from general population evacuation. **Criterion 2.b.1:** Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3) **EXTENT OF PLAY:** Potential plume location and dose will be projected through the use of models, data from the field, monitoring teams, and information provided by the licensee. Appropriate Protective Action Recommendations (PARs) will be developed as outlined in the Plan. **Criterion 2.b.2:** A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1,A.3; C.4, 6; D.4; J.9; J.10.e, f; m) **EXTENT OF PLAY:** A decision making process involving consideration of all relevant factors and all necessary coordination will be utilized as outlined in the Plan. A PAR/PAD board within WebEOC may be used but will not be evaluated. Decision makers will determine protective action(s) subsequent to discussion with the State Emergency Operations Center (SEOC), Manitowoc and Kewaunee Counties' EOCs and following recommendations from the licensee and the State Radiological Coordinator (SRC). [Note: the WebEOC PAR/PAD board tool's functionality and/or limitations are not intended for evaluation during the Exercise. The *Green Sheet* remains the formal document for issuing the PAR from the SRC.]	Situational Assessment
<u>Sub-element 2.c – Precautionary and/or Protective Action Decision Consideration for the Protection of Persons with Disabilities and Access/Functional Needs</u> **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to determine precautionary and/or	Operational Coordination Operational Communications Situational Assessment

protective action decisions, including evacuation, sheltering, and use of KI, if applicable, for groups of persons with disabilities and access/functional needs (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals). The focus is on those groups of persons with disabilities and access/ functional needs that are or potentially will be affected by a radiological release from an NPP. **Criterion 2.c.1:** Precautionary and/or protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs. (NUREG-0654/ FEMA-REP-1, D.4; J.9; J.10.d, e) **EXTENT OF PLAY:** Protections for groups of persons with access/functional needs are included in the Counties' Emergency Operations Plans to include notification, evacuation of schools, and the use of KI.	
Sub-element 2.d. – Radiological Assessment and Decision Making for the Ingestion Exposure Pathway **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway. During an incident at an NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion exposure pathway for weeks or years. **Criterion 2.d.1:** Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria. (NUREG-0654/FEMA-REP-1, A.3; C.1, 4; D.4; J.9,11) **EXTENT OF PLAY: This criterion will not be evaluated.**	Operational Coordination Environmental Response/Health and Safety Situational Assessment

Sub-element 2.e. – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Re-entry and Return **INTENT:** This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a sever incident at an NPP. **Criterion 2.e.1:** Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG-0654/FEMA-REP-1, I.10; J.9; K.2.a; M.1) **EXTENT OF PLAY: This criterion will not be evaluated.**	Operational Coordination Environmental Response/Health and Safety Situational Assessment Economic Recovery Health and Social Services Housing Natural and Cultural Resources
ASSESSMENT AREA 3 – PROTECTIVE ACTION IMPLEMENTATION	
Sub-element 3.a – Implementation of Emergency Worker Exposure Control **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of the PAGs, and the capability to provide KI for emergency workers, always applying the "as low as is reasonably achievable" principle as appropriate. **Criterion 3.a.1:** The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate recordkeeping of the administration of KI to emergency workers. (NUREG-0654/FEMA-REP-1, K.3.a, b; K.4) **EXTENT OF PLAY:** Appropriate dosimetry and KI will be issued to emergency workers in accordance with the Counties' Emergency Operations Plans. This will occur at the FOC/MRL and/or county reception center locations. An 'Emergency Worker Dosimetry Briefing' video will be played prior to distributing dosimetry. Should an evacuation of the FOC/MRL and/or county reception center locations be recommended due to the scenario, this evacuation will be simulated.	Operational Coordination Environmental Response/Health and Safety
Sub-element 3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public	Public Information and Warning

INTENT: This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, if in the plans/procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to institutionalized individuals, providing KI to the general public is an ORO option and must be reflected as such in ORO plans/procedures. Provisions must include the availability of adequate quantities, storage, and means of distributing KI. **Criterion 3.b.1**: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals is maintained. (NUREG-0654/ FEMA-REP-1, J.10.e, f) **EXTENT OF PLAY:** Should a decision to use Potassium Iodide (KI) be made, sufficient quantities and appropriate instructions for the use of KI will be made available. KI for the general public is not distributed or administered. KI for county emergency workers is transported to reception center locations per the Counties' Emergency Operation Plans and will be simulated if needed.	Operational Coordination Environmental Response/Health and Safety Public and Private Services and Resources
Sub-element 3.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to implement precautionary and/or protective action decisions, including evacuation and/or sheltering, for all persons with disabilities and access/functional needs. The focus is on those persons with disabilities and access/ functional needs that are (or potentially will be) affected by a radiological release from an NPP. **Criterion 3.c.1:** Precautionary and/or protective action decisions are implemented for persons with disabilities and access/ functional needs other than schools within areas subject to protective actions. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g) **EXTENT OF PLAY:** Manitowoc and Kewaunee County will demonstrate the ability and describe the resources to implement appropriate protective actions for their special population groups. The County's Chief Elected Official or his/her designee will evaluate protective action recommendations from the State and determine whether those recommendations are appropriate for the local situation. Manitowoc and Kewaunee County EOC staff maintains a list of people with special transportation needs (as provided by the clients) as well as agencies	Public Information and Warning Operational Coordination Critical Transportation Environmental Response/Health and Safety

who serve clients with special needs and will simulate providing evacuation assistance for these people by contacting transportation providers. The list of people with special transportation needs is available for evaluators to review but cannot be copied or removed from either county EOC in order to protect confidentiality. Both Counties EOC staff will plan for people with special transportation needs and simulate providing evacuation assistance, as driven by the scenario. No KI is provided to special populations in the 10 Mile EPZ. Neither Kewaunee nor Manitowoc County has any prison/jails inside the Point Beach Nuclear Plant EPZ. The remaining special populations follow their own individual plans. **These actions will take place but will not be evaluated.** **Criterion 3.c.2: OROs/School officials implement precautionary and/or protective actions for schools. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g)** **EXTENT OF PLAY:** Kewaunee County has no schools within the 10-mile EPZ of the Point Beach Nuclear Plant. However, there are plans to keep children from returning home that live in the EPZ but attend school outside of the EPZ. The Superintendent or a School representative will be available during the exercise to discuss the plans via interview at the Kewaunee EOC in sequence. **School evacuations will be simulated in Manitowoc County and will not be evaluated, nor will a school representative be in Manitowoc's EOC.**	
Sub-element 3.d. – Implementation of Traffic and Access Control **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to implement protective action plans/procedures, including relocation and restriction of access to evacuated/sheltered areas. This Sub-element focuses on selecting, establishing, and staffing of traffic and access control points, and removal of impediments to the flow of evacuation traffic. **Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, A.3; C.1,4; J.10.g, j)** **EXTENT OF PLAY:** The Manitowoc County Highway Department and/or the Manitowoc County Sheriff's Office will discuss and designate traffic and access control points. This demonstration will occur at the Manitowoc County Reception Center on Monday, June 10th around 6:30 pm. An example of the traffic and access control point will also be established at the Manitowoc County Reception Center and will be demonstrated by interview.	Operational Coordination Critical Transportation On-scene Security and Protection Operational Coordination Critical Transportation Infrastructure Systems

The Kewaunee County Sheriff's office will discuss and designate traffic and access control points. This will occur at the Kewaunee County EOC. An example traffic and access control point will be established in the parking lot of the Kewaunee County Emergency Operations Center and be demonstrated by interview at 11:15am on Tuesday, June 11th. **Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG-0654/FEMA-REP-1, J.10.k)** **EXTENT OF PLAY:** One impediment to evacuation will be injected to each county and they will demonstrate the decision-making process to select alternative routes, inform the public of restrictions related to the impediment, and develop a plan to remove the impediment. This coordinated effort will be demonstrated by both the Manitowoc County EOC, Kewaunee County EOC, as well as the JIC.	
Sub-element 3.e – Implementation of Ingestion Exposure Pathway Decisions **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 10-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions. **Criterion 3.e.1:** The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. (NUREG-0654/FEMAREP-1, A.3; C.1, 4; J.11) **EXTENT OF PLAY: This criterion will not be demonstrated or evaluated.** **Criterion 3.e.2:** Appropriate measures, strategies, and preprinted instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654/ FEMA-REP-1, G.1, J.9, 11) **EXTENT OF PLAY: This criterion will not be demonstrated or evaluated.**	Operational Coordination Public Information and Warning
Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return.	Operational Coordination Critical Transportation Economic Recovery

Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP. Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10.j; J.12; K.5.b; M.1, 3) **EXTENT OF PLAY: This criterion will not be demonstrated or evaluated.**	Health and Social Services Housing Natural and Cultural Resources
ASSESSMENT AREA 4 – FIELD MEASUREMENT AND ANALYSIS	
Sub-element 4.a – Plume Phase Field Measurements and Analyses **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at an NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts. **Criterion 4.a.1:** [Reserved] **Criterion 4.a.2:** Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a) **EXTENT OF PLAY:** Three field monitoring teams will be pre-staged and dispatched (two for evaluation) from the FOC/MRL under the control of the Field Team Manager and at the direction of the SRC. Field monitoring team survey results will be transmitted to the FOC/MRL. At least one sample will be transported to the FOC/MRL to demonstrate sample receipt via courier or directly by a team. **Criterion 4.a.3:** Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)	Operational Coordination Situational Assessment

EXTENT OF PLAY: Field monitoring teams are capable of obtaining airborne radioiodine and particulate samples, determine field radioiodine measurements, transmit data and transport samples to the FOC/MRL team. The measurement of and calculation of particulate samples will occur at the field laboratory or via discussion at the mobile lab. Personal Protective Equipment (PPE) will be simulated. Charcoal cartridges will be used as a substitute for silver zeolite. Field Monitoring Teams will demonstrate the ability to obtain ambient radiation measurements and air samples. All radiological readings for this exercise will be injected by a controller. [Note: The use of Rad Responder will be evaluated.]	
Sub-element 4.b – Post-Plume Phase Field Measurements and Sampling **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to assess the actual or potential magnitude and locations of radiological hazards to determine the ingestion exposure pathway EPZ and to support relocation, reentry, and return decisions. This Sub-element focuses on collecting environmental samples for laboratory analyses that are essential for decisions on protecting the public from contaminated food and water and direct radiation from deposited materials. **Criterion 4.b.1:** The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making. (NUREG-0654/FEMA-REP-1, C.1; I.8; J.11) **EXTENT OF PLAY: This criterion will not be demonstrated or evaluated.**	
Sub-element 4.c – Laboratory Operations **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision making. **Criterion 4.c.1:** The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654/FEMA-REP-1, C.1, 3; J.11) **EXTENT OF PLAY:** The Wisconsin Department of Health Services, Radiation Protection Section will deploy its FOC/MRL to the Manitowoc County Highway Department for this exercise and will be evaluated. The sample receipt, prep, and analysis will also be evaluated. A sample collected by field teams will be transported to, prepared by, and measured for transmittal to the SRC by the MRL. Actual transmittal of data may not occur due to the exercise ending, however the Lab Service Coordinator is available to discuss how it would be accomplished.	Environmental Response / Health and Safety

ASSESSMENT AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION	
Sub-element 5.a – Activation of the Prompt Alert and Notification System **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this Sub-element are further discussed in Section V, Part A of this Manual, Alert and Notification Systems. **Criterion 5.a.1:** Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance. (NUREG-0654/FEMA-REP-1, E.5, 6, 7) **EXTENT OF PLAY:** Manitowoc County Emergency Services (primary) sounds the Point Beach Emergency Planning Zone Sirens. Some of those sirens are in Kewaunee County, and are included in the notification from Manitowoc County. Manitowoc County will simulate siren sounding if applicable. Kewaunee County is the alternative location/secondary. Emergency Alert System (EAS) and Special News Broadcast simulated messages to WOMT (Manitowoc) and WDOR (Kewaunee) will be generated and distributed but will not be broadcasted. Based on PAD activity for this exercise, simulated EAS messages may be utilized to demonstrate this activity. Siren testing data is submitted to FEMA annually with the Annual Letter of Certification (ALC) submission. WDOR in Kewaunee County does operate 24/7, but it is not manned between the hours of 5:00 p.m. to 6:00 a.m. The county has a plan to contact WDOR's on-call person at an Alert ECL, who would then go to the station. WDOR Radio Station will have staff available for interview during the exercise. WOMT in Manitowoc County is not manned 24/7 but will have staff available for interview during the exercise. **Criterion 5.a.2:** *[Reserved]* **Criterion 5.a.3:** Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654/FEMA-REP-1, E.6, Appendix 3.B.2.c)	Public Information and Warning Operational Coordination Operational Communications

EXTENT OF PLAY: Backup route alerting will not be demonstrated or evaluated during this exercise. **Criterion 5.a.4:** Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. (NUREG-0654/FEMA-REP-1, E.6; Appendix 3.B.2.c) **EXTENT OF PLAY:** There are no FEMA recognized exception areas in either Manitowoc or Kewaunee Counties. This criterion will not be demonstrated or evaluated.	
Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654/FEMAREP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654/FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the "public inquiry hotline." **Criterion 5.b.1:** OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c) **EXTENT OF PLAY:** The state will demonstrate the formulation and dissemination of accurate information and instructions, including pre-scripted EAS and Special News Broadcast messages provided to the JIC. The State of Wisconsin PIOs in the JIC will coordinate with the SEOC and PIOs from the counties and the utility to ensure the media is briefed in a clear, accurate, and timely manner. Procedures for early notification of the media will be demonstrated in the SEOC prior to the activation of the JIC, if driven by the scenario. Public inquiry calls will be handled by the state in the WI-DIAL call center. The WI-DIAL will be staffed by WEM personnel. All incoming calls to the WI-DIAL staff will be simulated via a SIM Cell located at WEM. The state pre-distributes ingestion information in the *WI Radiological Emergency Information for Farmers, Food Processors, and Distributors* booklet. This is sent to County Ag Extension Agents and Emergency Management Directors both in hard copy and electronically for posting to their websites. If extra copies are needed, WEM has an emergency printing process in place, this will be simulated.	Public Information and Warning Operational Communications

Manitowoc and Kewaunee County will have a Public Information Officers (PIOs) present at the JIC who will work with the state, utility, and other county PIOs to ensure that their county's interests and concerns are accurately represented in the media briefings. The counties use the WI-DIAL call center to assist with rumor control. All media briefings will be done at the JIC in Green Bay. The Manitowoc and Kewaunee County PIOs assigned to the JIC will work closely with the PIOs at the county EOC to make sure media releases are accurate and coordinated.	
ASSESSMENT AREA 6 – SUPPORT OPERATION/FACILITIES	
Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers. **Criterion 6.a.1:** The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12) **EXTENT OF PLAY:** The State of Wisconsin will demonstrate the adequacy of procedures, facilities, equipment and personnel for radiological monitoring and decontamination. Health monitoring teams will demonstrate radiological monitoring and decontamination of evacuees at reception centers in accordance with the applicable County reception center procedures. Both counties will set up and operate at least three monitoring stations (i.e. two portal monitors and one hand monitor). The heath monitoring teams will include personnel from the DHS-RPS and individuals from the counties who have received training as Auxiliary Health Monitors. The personnel from the county will work under the supervision of DHS-RPS staff and will be evaluated as a part of the State of Wisconsin's response. Once each reception center is operational and monitors have surveyed several evacuees to establish flow, evacuees will be monitored and registered, with one evacuee requiring decontamination. Two evacuee vehicles will be monitored, one of which will require decontamination. Reception center demonstrations for this criterion are a County responsibility and will be held out-of-sequence. Kewaunee County Reception Center will be demonstrated but **not evaluated** on **Wednesday, May 1st, 2019,** beginning at	Environmental Response/Health and Safety Mass Care Services

~6 p.m. at the Luxemburg-Casco Intermediate School, 318 N. Main Street, Luxemburg, WI. In Manitowoc County, the Reception Center demonstration will be held out-of-sequence but **not evaluated**, with set-up beginning at ~6 pm on **Monday, June 10, 2019**, at the Manitowoc County Highway Department, 3500 Highway 310, Manitowoc, WI.	
Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles **INTENT:** This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles. **Criterion 6.b.1:** The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA-REP-1, K.5.a, b) **EXTENT OF PLAY:** Health monitoring teams for Kewaunee County will demonstrate this criterion out of sequence, at 6:00 p.m. on **Wednesday, May 1st, 2019** at the Kewaunee Reception Center (Luxemburg-Casco Intermediate School). On Monday, **June 10th, 2019** Manitowoc will demonstrate this criteria at the Manitowoc County Reception Center (County Highway Commission), 3500 Highway 310, Manitowoc, Wisconsin at approximately 6:00 p.m. (Reception Center personnel will demonstrate the monitoring of one emergency worker and one vehicle, which will require decontamination at each reception center. **This criterion will not be evaluated.**	Environmental Response/Health and Safety
Sub-element 6.c – Temporary Care of Evacuees **INTENT:** This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host/support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement. **Criterion 6.c.1:** Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654/FEMA-REP-1, J.10.h, J.12) **EXTENT OF PLAY: This criterion will not be demonstrated or evaluated.**	Operational Coordination Mass Care Services

Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals **INTENT:** This Sub-element is derived from NUREG-0654/FEMAREP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services. **Criterion 6.d.1:** The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMAREP-1, F.2; H.10; K.5.a, b; L.1, 4) **EXTENT OF PLAY:** Two medical hospital drills will be held for this exercise. The first demonstration (Kewaunee County) will occur out-of-sequence on **Wednesday, May 1st, 2019** at Aurora BayCare Medical Center, 2845 Greenbrier Road, Green Bay. The hospital portion of the drill will be a continuation of the Kewaunee County ambulance drill but will be demonstrated separately. Set-up for the drill will commence at ~6:00 p.m. at the Kewaunee County Reception Center. The transportation portion of the drill will begin at ~7:00 p.m. and should transition to the hospital portion by ~7:30 p.m. Once the ambulance drill loads the contaminated patient into the ambulance that will conclude the ambulance and transportation drill. A separate contaminated/injured individual will be used during the hospital portion and will be pre-staged at the hospital upon arrival of the ambulance to finish the transportation and medical services portion. Luxemburg Rescue Service personnel will demonstrate the packaging and preparation for transport of a potentially contaminated medical victim. Ambulance personnel will make a report to Aurora BayCare Medical Center and transport to that facility. The hospital will demonstrate setting up the Radiological Emergency Area, providing appropriate medical care to the patient, and monitoring and decontamination of the patient. The second medical hospital drill will be held on **Monday, June 10**, **2019** at the Holy Family Memorial Hospital, 2300 Western Avenue, Manitowoc. The hospital portion of the drill will be a continuation of the Manitowoc County ambulance drill but will be demonstrated separately at ~4:00 p.m. at Holy Family Medical Center. Set-up for the drill will commence at ~6:00 p.m. at the Manitowoc County Reception Center. The transportation portion of the drill will begin at ~7:00 p.m. and should transition to the hospital portion by ~7:30 p.m. Once the ambulance drill loads the contaminated patient into the ambulance that will conclude the ambulance and transportation drill. A separate contaminated/injured individual will be used during the hospital portion and will be pre-staged at the hospital upon arrival of the ambulance to finish the transportation and medical services portion. The hospital will demonstrate setting up the Radiological Emergency area, providing	Operational Coordination Environmental Response/Health and Safety Public Health and Medical Services

appropriate medical care to the patient, and monitoring and decontamination of the patient. Manitowoc Fire Department EMS personnel will demonstrate the packaging and preparation for transport of a potentially contaminated medical victim. Ambulance personnel will make a report to Holy Family Memorial Medical Center (2300 Western Avenue, Manitowoc) and transport to that facility.	

4. Standards & References

All play, demonstrations, and interviews will be conducted in accordance with the 2019 State of Wisconsin Emergency Response Guide/Wisconsin Department of Health Radiological Incident Response Plan/Manitowoc County Emergency Operations Plan/Kewaunee County Emergency Operations Plan and related procedures, protocols and checklists. The following primary references, plans, and procedures will be used during exercise play:

- WEM Duty Officer Manual
- WEM SEOC Operations Manual

5. Exercise Parameters

The 2019 Point Beach Nuclear Plant Plume Pathway Full Scale Exercise (June 11, 2019) will require decisions from Offsite Response Agencies with regard to the protection of the health and safety of the public as a result of a radiological plume release from the Point Beach Nuclear Plant and the potential for contamination out to the 10-mile Ingestion Pathway Zone into the environment. Approximately 14 separate offsite response venues will be activated, including Emergency Operation Centers, Radiological Field Teams, Reception Centers, and the Joint Information Center.

Controllers and/or evaluators may request re-demonstration of any area as long as it does not impede exercise play. Criteria that can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 2.d.1, 2.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 3.e.1, 3.e.2, 3.f.1, 4.a.3, 4.b.1, 4.b.c, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairperson of the Regional Assistance Committee (RAC), include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1. The State of Wisconsin wishes to re-demonstrate any areas of concern during the week of the exercise, if possible.

6. Exercise Participants

State of Wisconsin

Wisconsin Emergency Management (WEM)
Department of Health Services- Radiation Protection Section (DHS)
Department of Health Services- Public Health (DHS)
Department of Agriculture, Consumer, Trade Protection (DATCP)
Department of Natural Resources (DNR)
Department of Children and Families (DCF)
Department of Transportation – Highways (DOT)
Wisconsin State Patrol (WSP)
WI National Guard
Department of Corrections (DOC)
Department of Justice (DOJ)
Department of Administration (DOA)
RACES
Point Beach Utility Liaison

WI-DIAL Public Hotline

Manitowoc County

Emergency Services
Public Health
Highway Department/Co. Highway Dept.
Sheriff's Dept./LE
Human Services
County Ag UW-Extension
Fire/Rescue
WEM Liaison
Point Beach Utility Liaison
RACES
American Red Cross

Kewaunee County

Emergency Management
County Board Representative
Law Enforcement
Public Health
County Ag UW-Extension
WEM Liaison
Point Beach Utility Liaison
Fire/EMS
Human Services
Co. Highway Dept.
American Red Cross
RACES

Point Beach Nuclear Plant

Federal

FEMA Region V
Nuclear Regulatory Commission (NRC), Region III
Department of Energy (DOE)

EXERCISE EVENT LOCATIONS

The 2019 Point Beach Nuclear Plant (PBNP) exercise is a full-participation, plume pathway exercise. The participating Off-site Response Organizations (OROs) are the State of Wisconsin, Manitowoc County, and Kewaunee County. The exercise events will take place at these various locations within the State of Wisconsin, and Manitowoc, Kewaunee counties.

State of Wisconsin Emergency Operations Center (SEOC) 2400 Wright Street, Room 111 Madison, WI 53704	Aurora BayCare Medical Center 2845 Greenbrier Rd Green Bay, WI 54311
State of Wisconsin WI-DIAL Center 2400 Wright Street Madison, WI 53704	Manitowoc County EOC 1024 South Ninth Street Manitowoc, WI 54220
State Radiological Coordinator (SRC) Room 2400 Wright Street, Room 104/105 Madison, WI 53704	Manitowoc County Reception Center 3500 Highway 310 Manitowoc, WI 54220
Joint Information Center (JIC) 3060 Voyager Drive Green Bay, WI 54311	Holy Family Memorial Hospital 2300 Western Avenue Manitowoc, WI 54220
Kewaunee County EOC 625 Third Street Luxemburg, WI 54217	FOC/MRL 3500 Highway 310 Manitowoc, WI 54220
Kewaunee County Reception Center Luxemburg-Casco Intermediate School 318 N. Main Street Luxemburg, WI 54217	Point Beach Emergency Offsite Facility (EOF) 3060 Voyager Drive, Green Bay, WI 54311

TIMELINE OF ACTIVITIES

(Arranged by Counties and State)

ACTIVITY	DATE	TIME	LOCATION
2019 Point Beach Exercise – June 11th			
Pre-Exercise Activities			
Kewaunee Hospital Portion	May 1st	4:00PM	Aurora BayCare Medical Center 2845 Greenbrier Road, Green Bay
Kewaunee County Reception Center	May 1st	6:00PM	Kewaunee County Reception Center 318 North Main, Luxemburg
Kewaunee Medical Drill	May 1st	6:30 pm	Kewaunee County Reception Center 318 North Main, Luxemburg
Kewaunee Dosimetry Briefing	May 1st	6:30 pm	Kewaunee County Reception Center 318 North Main, Luxemburg
FEMA Pre-exercise Briefing	June 10th	2:00pm	Holiday Inn, Manitowoc 4601 Calumet Ave, Manitowoc, WI 54220
Manitowoc Hospital Portion	June 10th	4:00 PM	Holy Family Memorial Medical Center 2300 Western Avenue, Manitowoc
Manitowoc County Reception Center	June 10th	6:00 PM	Manitowoc County Reception Center 3500 Highway 310, Manitowoc
Manitowoc Medical Drill	June 10th	6:30PM	Manitowoc County Reception Center 3500 Highway 310, Manitowoc
Manitowoc Dosimetry Briefing	June 10th	6:30 PM	Manitowoc County Reception Center 3500 Highway 310, Manitowoc
Manitowoc Traffic Access Control Point	June 10th	Following Dosimetry Briefing	Manitowoc County Reception Center 3500 Highway 310, Manitowoc
Exercise Activities			
Manitowoc County			
Manitowoc County EOC	June 11th	In Sequence	Manitowoc County EOC 1024 South Ninth Street, Manitowoc
Manitowoc Initial Warning Point (IWP)	June 11th	In Sequence	Manitowoc County Dispatch 1024 South Ninth Street, Manitowoc

			2nd Floor
Manitowoc Radio Station Interview	June 11th	In sync with Scenario	WOMT Station 3730 Mangin St., Manitowoc
Kewaunee County			
Kewaunee County EOC	June 11th	In Sequence	Kewaunee County EOC 625 Third Street, Luxemburg
Kewaunee Initial Warning Point (IWP)	June 11th	In Sequence	Kewaunee County Dispatch 620 Juneau Street, Kewaunee
Kewaunee School Interview	June 11th	10:30 am	Kewaunee County EOC 625 Third Street, Luxemburg
Kewaunee Traffic Access Control Point	June 11th	11:15 am	Kewaunee County EOC 625 Third Street, Luxemburg
Kewaunee Radio Station Interview	June 11th	In sync with Scenario	WDOR Station 800 S. 15th Ave Sturgeon Bay, WI. 54235
State of Wisconsin			
WI State EOC	June 11th	In sequence	State EOC, Room 111 2400 Wright St., Madison
WI Initial Warning Point (IWP)	June 11th	In sequence	Wisconsin Traffic Management Center 433 W St. Paul Ave, #300 Milwaukee, WI 53203
WI State Radiological Coord.	June 11th	In sequence	SRC Room, Room 104/105 2400 Wright St., Madison
WI-DIAL	June 11th	In sequence	WI-DIAL Center 2400 Wright St., Madison
JIC	June 11th	In sequence	3060 Voyager Dr. Green Bay
Forward Operating Center/ Mobile Response Laboratory	June 11th	In sequence	3500 Highway 310 Manitowoc, WI 54220
Field Teams	June 11th	In sequence	3500 Highway 310 Manitowoc, WI 54220
Post-Exercise Activities			
Participants' Briefing	June 14th	9:00 am	Manitowoc County EOC 1024 South Ninth Street, Manitowoc
Public/Media Briefing	June 14th	10:00 am	Manitowoc County EOC

			1024 South Ninth Street, Manitowoc

This page is intentionally left blank

This page is intentionally blank

APPENDIX F: Offsite/Onsite Scenario Timeline

Monday, June 10, 2019	
2:00 pm	FEMA Pre-Exercise Briefing (all participating agencies) – Holiday Inn, Manitowoc
6:00 pm	Manitowoc County Reception Center, Traffic Access Control Point (TACP), and Dosimetry demonstrations – County Highway Dept., 3500 Highway WI-310, Manitowoc, WI
Tuesday, June 11, 2019	
8:00am	Initiating condition at PBNP – full-scale plume pathway exercise begins
~8:15am	**UNUSUAL EVENT** is declared by PBNP per EAL RU2.1 *(Unexpected rise in plant radiation.)*
~8:30am	**UNUSUAL EVENT** notification is made by PBNP to Traffic Management Center (TMC) (via State Warning Center 1 in Milwaukee), Manitowoc County Emergency Management (via dispatch), and Kewaunee County Emergency Management (via dispatch). • TMC Dispatch (Warning Center 1) calls WEM DO with **UE** NARS form • WEM DO pages SRC and notifies them of **UE** status • SRC calls utility back to verify NARS information and to get any additional information that may be available • SRC calls WEM Senior Duty Officer to refer information and discuss possible elevation of the SEOC

~9:45 am	**ALERT** is declared by PBNP per EAL RA2.1. *(Damage to irradiated fuel or loss of water level that has or will result in the uncovering of irradiated fuel outside the reactor vessel.)* The fallen transfer cask in the SFP shifts. Significant gassing can be observed from several fuel racks. SFP area rad monitors and PAB gas monitors indicate the gas release.

~10:00 am	**ALERT** notification is made by PBNP to State of Wisconsin (via Warning Center 1), Manitowoc County Emergency Management (via dispatch), and Kewaunee County Emergency Management (via dispatch).
	
	• TMC Dispatch (Warning Center 1) calls WEM DO with **ALERT** NARS form
	• WEM DO pages SRC and notifies them of **ALERT** status
	• SRC calls utility back to verify NARS information and to get any additional information that may be available
	• SRC calls WEM Senior Duty Officer (SDO) to refer information, plant status, and discuss possible elevation of the SEOC
	• SDO instructs the DO to begin notifying appropriate state agencies and volunteer agencies via the RAVE Alert. If this feature fails, the SDO and DO will perform the telephone notifications.
	• SDO may activate WI-DIAL depending on the current situation and/or specific request from utility, risk county, or at discretion of the SDO
	• DO notifies the Public Information Officers, respective Regional Directors and instructs them to report to JIC and risk county EOCs.
	• DO notifies FEMA Region V Watch Office
	• DO reports to the SEOC
	  ○ Ensure SEOC security is established
	  ○ Ensure WebEOC incident site is created
	  ○ SRC Room Set Up
	  ○ Establish communications with Manitowoc and Kewaunee County EOCs
	• Manitowoc and Kewaunee EOCs are activated if not already done so.
	• Joint Information Center (JIC) is activated in Green Bay
	• Reception Centers/Congregate Care Centers are put on standby by the counties
	• Counties broadcast “First Notice” advisory EAS message.
	• Ingestion counties are notified via RAVE Alert.

	• SRC will determine whether or not to put mobile lab and field teams on standby or to dispatch them
~10:30 am	State PIOs and JIC staff report to the JIC
~11:15 am	**SITE AREA EMERGENCY is declared by PBNP per EAL FS1 (***Loss or potential loss of any two barriers.)*
~11:30 am	**SITE AREA EMERGENCY** notification is made by PBNP to the state and counties. The following actions will take place following notification of a **SITE AREA EMERGENCY:** • Reception Centers and Congregate Care Centers are activated (simulated) • Public schools in the Manitowoc County 10-mile EPZ are evacuated to Silver Lake College and Valders Schools (simulated). There are no Kewaunee County schools within the 10-mile EPZ. • Livestock advisory issued to all farmers within the 10-mile EPZ • Ingestion brochures are ordered and printed (simulated) • SRC will dispatch field teams and mobile lab if not already done so • SRC will request assistance from the 54th Civil Support Team (CST) and the Dept. of Energy (DOE) RAP team
~12:00 pm	**GENERAL EMERGENCY** is declared by PBNP per EAL RG1.1 or RG1.2. *(Offsite dose resulting from an actual or imminent release of gaseous radioactivity exceeds 1000 mrem TEDE or 5000 mrem Thyroid CDE for the actual or projected duration of the release using actual meteorology.)*
~12:15 pm	**GENERAL EMERGENCY** notification is made by PBNP to the state and counties. The Utility will <u>likely</u> recommend an evacuation 0 – 5 miles 360° and 10 Miles downwind sectors A, B, C, D. Depending on when dose assessment is completed, the SRC will likely recommend the same. This recommendation would result in an evacuation for Subarea 5 and 10N. The following actions will take place following notification of a **GENERAL EMERGENCY:** • SEOC conducts a conference call with both risk counties to discuss Protective Action Recommendation (PAR), once counties concur, PAR turns into a Protective Action Decision (PAD) • Counties decide on times to activate sirens and when to broadcast EAS message(s)

	• WI Dept. of Agriculture, Trade, and Consumer Protection issues an Agricultural Hold for Risk Counties (possible downwind counties)
12:15 pm	Manitowoc County Radio Station interview WOMT
12:15 pm	Kewaunee County Radio Station interview WDOR
~12:30 pm	Utility terminates their portion of the exercise. Communicator, Utility Liaisons, Dose Assessment will remain playing to support offsite functions.
~12:45 pm	Both Kewaunee and Manitowoc Counties will experience a traffic impediment (via inject message)
~1:45 pm	Termination of Plume Phase Exercise.
2:00 pm	SEOC Hotwash

Onsite Timeline:

Proposed Time	Actual	Event	Comments
0700		Crew enters the simulated Control Room. Shift turnover is conducted.	Message 1
0730		Commence 2019 NRC Evaluated Exercise. Crew Assumes watch	Messages 2 & 3
0800		**Initiating Condition for UNUSUAL EVENT declaration.** Event #1: UE – RU2.1, Unexpected Rise in Plant Radiation. (lowering SFP level + rise on RE-105 / RE-135) Crane malfunction results in a dropped transfer cask over the SFP. The SFP liner is damaged and is leaking. This starts the 15 minute clock for the Unusual Event classification (DEP Opportunity).	
0815		**Control will declare RU2.1, Unexpected Rise in Plant Radiation.** This starts the 15 minute clock for notifications (DEP Opportunity).	(DEP Documentation)
0830		**NARS notification for the UE (first agency contacted).**	(DEP Documentation)
0830		**NARS notification for the classification level (Box #4)**	(Compliance Documentation)
0900		ERO facilities staffed and operating (if ERO activated for the UE) - Early	
0915		Safeguards bus 1A06 lockout due to equipment failure. The bus may be re-energized after replacement of a failed lockout relay. Note: Bus recovery must be delayed until after the SAE event. Set up for H.1 later. (Gives the	

Proposed Time	Actual	Event	Comments
		crew something to do in the 90 minutes between the UE and Alert.)	
0915		ENS for UE due	
0930		**Initiating Condition for Alert declaration.** Event #2: ALERT – RA 2.1, Damage to Irradiated Fuel or Loss of Water Level that Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel. (RE-105 / RE-135 in alarm) This starts the 15 minute clock for the Alert classification (DEP Opportunity).	
0945		**Control Room declares an Alert** based on RA2.1, Damage to Irradiated Fuel or Loss of Water Level that Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel. This starts the 15 minute clock for notifications (DEP Opportunity).	(DEP Documentation)
1000		**NARS notification for the Alert (first agency contacted).**	(DEP Documentation)
1000		**NARS notification for the classification level (Box #4)**	(Compliance Documentation)
1015		Site Assembly and Accountability is done with simulated evacuation of personnel.	
1030		ERO facilities staffed and operating (if ERO activated for the Alert) - Late	
1045		NRC ENS notification of alert as soon as possible after the NARS notification and within 60 minutes of the Alert declaration.	
1100		**Initiating Condition for SAE declaration.** Event #3: SAE – FS1, Loss or Potential Loss of ANY two Barriers (CSP-H.1 entry = fuel clad potential loss + RCS Barrier potential loss) – Start time will be entry to H.1 from EOP-0 Step 6 Faulted S/G, results in reactor trip and SI	

Proposed Time	Actual	Event	Comments
		1P-29 TD AFW pump trips on over-speed (may be reset, this is the success path out of H.1) 1P-53, MD AFW pump – no power due to bus lockout P-38A, SSG Pump – starts, diminished head capacity P-38B, SSG Pump – fails to start 2P-53, OOS – initial conditions	
1115		**TSC declares a SAE based on FS1**, Loss or potential loss of any two barriers. This starts the 15 minute clock for notifications (DEP Opportunity).	(DEP Documentation)
1130		**NARS notification for the SAE(first agency contacted).**	(DEP Documentation)
1130		**NARS notification for the classification level (Box #4)**	(Compliance Documentation)

1145		**Initiating Condition for GE declaration.** Event #4: GE – RG1.1 0r RG1.2, Offsite Dose Resulting from an Actual or Imminent Release of Gaseous The fallen transfer cask in the SFP shifts. Significant gassing can be observed from several fuel racks. SFP area rad monitors and PAB gas monitors indicate the gas release. Radioactivity Exceeds 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology. (should be by dose assessment, but direct reading will also be available) RMS continues to ramp from Event #2 and eventually reaches the GE threshold.	
1200		**TSC declares a GE based on RG1.1 or RG1.2**, Offsite Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology. This starts the 15 minute clock for notifications (DEP Opportunity).	(DEP Documentation)
1215		**NARS notification for the GE(first agency contacted).**	(DEP Documentation)
1215		**NARS notification for the classification level (Box #4)**	(Compliance Documentation)
TBD		Terminate drill.	Message 19/20