

## ***Plan Approval and Implementation***

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In accordance with Maine Revised Statute, Title 37-B, §704, the Maine Emergency Management Agency (MEMA) has developed the Radiological Emergency Response Plan (REP) to provide a framework for state-level emergency management activities and to define how state government interfaces with other emergency management stakeholders, including local, county, and tribal governments, non-governmental organizations (NGOs), other states, the Federal Government, and the private sector in the response to a radiological incident.

The REP was developed with significant input from stakeholders and subject matter experts at all levels. It is drafted in accordance with relevant state and federal laws and conforms to federal guidance. All agencies and organizations assigned responsibilities under this plan shall maintain a level of preparedness to support its implementation. Those responsibilities include establishment and maintenance of written policies and procedures, training of personnel, and participation in emergency exercises.

The REP is a living document; it will be continuously updated and revised to reflect lessons learned during incident response or exercise play. Stakeholders should direct comments, edits, and questions to MEMA. This plan supersedes any previously issued REP.

By virtue of the authority vested in me by the state of Maine, I hereby approve the plan and issue this REP as the official guidance of all concerned.



Peter.J. Rogers (Sep 29, 2021 08:02 EDT)

MEMA Director

Sep 29, 2021

Date

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## Section 1: Introduction

### 1.2 Lead Agency

- Maine Department of Health and Human Services (MDHHS), Center for Disease Control (CDC), Radiation Control Program

### 1.3 Supporting Agencies

- Department of Defense, Veterans, and Emergency Management - Maine Emergency Management Agency (MEMA)
- Department of Defense, Veterans, and Emergency Management - Maine National Guard (MENG)
- Maine Department of Environmental Protection (MDEP)
- Bureau of Remediation and Waste Management (BRWM)
- Maine Department of Agriculture, Conservation and Forestry (MDACF),
- Maine Department of Public Safety - Bureau of Emergency Communications (MBECD)
- New Hampshire Emergency Management Agency
- New Brunswick Emergency Measures Organization (NBEMO)
- Seabrook Power Station (Seabrook, NH)  
Point Lepreau Nuclear Generating Station (Point Lepreau, New Brunswick, Canada)

## Section 2: Purpose, Scope, Situation, and Assumptions

### 2.1 Purpose

To protect the citizens of Maine from the possible effects of contamination to human food, animal feeds, and water resulting from a radioactive release into the environment from a nuclear power plant.

### 2.2 Scope

Protect members of the populace from food and water contamination with radioactive material.

Protect animals in the human food chain from the possible ingestion of food and water contaminated by radioactive materials.

Issue initial and follow-up messages to response agencies and the public from the Maine Emergency Management Agency (MEMA).

### 2.3 Basis for Plan Development

In the event of an accidental radiological release from a nuclear power plant, radionuclides may be released to the environment. The purpose of this Plan is to establish policies and procedures to implement Protective Actions on the basis of federal and state radiological criteria; these Protective Actions, if implemented, would minimize the effect on public health. For radiological emergency planning purposes, consideration should be given to the ingestion exposure pathway as follows:

By Federal guidance, the ingestion exposure pathway is approximately a 50-mile radius around a commercial nuclear power plant.

The principle exposure from the ingestion exposure pathway is most likely to occur through the consumption of contaminated food, water, or milk. Necessary protective measures and public concern may require modification of the production, processing, and the marketing cycle of contaminated products within affected areas. There may be variances in confession and uptake within the ingestion exposure pathway which may require detailed field sampling. There are a number of nuclides which may be released in a reactor accident, though the predominant nuclides for the ingestion exposure pathway on a short-term basis (up to several days) are expected to be radioiodine's.

Three ingestion exposure pathways will be considered in this emergency plan: milk, water/ aquaculture, and food. The milk pathway is potentially the most critical ingestion exposure pathway (pasture-cow-milk-processor-distributor-consumer) due to the potential effects on certain population segments. The water pathway may include drinking water supply intakes, reservoirs, and water treatment plants.

The food pathway may involve fruit, vegetables, and crops grown within the affected area, as well as the transporters, processors, and distributors of these products. The food and milk pathways may involve small family farms that produce for themselves and distribute to the local market only, large commercial farms, whose production is processed in many locations and delivered to widely dispersed consumers; therefore, interstate milk and food shipments may also be affected. Animal feed for farm animals whose milk or meat will be consumed is also of concern. Emphasis is placed on preventing

contamination of food or preventing contaminated foods from entering the food supply chain, in preference to issuing protective actions following contamination.

State governments have the responsibility to initiate Protective Actions in the event that a radiological incident causes radioactive contamination of food, water, or milk. To provide guidance on appropriate planning for such Protective Actions, the Food and Drug Administration (FDA) published recommendations in the Federal Register of August 13, 1998, concerning threshold of actions levels for dealing with accidental radioactive contamination of food, water, and milk supplies.

The State of Maine has adopted the FDA's recommendations in determining the levels and types of Protective Actions.

The FDA's guidance recommends protective actions which apply to all food pathways:

**Precautionary Actions** – Actions that are applicable to situations which cause minimal impact on the food supply. These actions would be intended to prevent or reduce the concentration of radioactivity in food or animal feed.

**Protective Actions** – Actions taken by responsible officials as recommended by state authorities to isolate food containing radioactivity to prevent its introduction into commerce, at which the responsible official must determine whether condemnation or another disposition is appropriate. The decision to implement Precautionary Actions generally will be based on known or potential releases to the environment, whereas the decision to take Protective Actions should be based on actual radiological sample measurements in the pathway of concern. Actions would be ordered by the Governor of Maine as advised by the state Radiation Control Program, the Department of Agriculture, Conservation and Forestry, the Department of Environmental Protection, the Department of Inland Fisheries and Wildlife, the Department of Marine Resources and other key state agencies involved in ingestion pathway emergency response.

## 2.4 Situation

The adjacent state of New Hampshire and the Canadian Province of New Brunswick have nuclear power plants which are capable of releasing radioactive materials under emergency conditions. Certain meteorological circumstances may cause contamination of parts of Maine. Maine is not in the 10-mile radius plume exposure pathway for either of these sites, although it is in the 50-mile radius ingestion exposure pathway of both sites. Nuclear power stations within 50 miles of Maine are:

Seabrook Power Station, Unit 1, Seabrook, New Hampshire  
Point Lepreau Nuclear Generating Station, Point Lepreau, New Brunswick, Canada

Figure II-2 & II-3, pages 7 & 8, illustrates the 50-mile ingestion exposure pathways for commercial nuclear plants that could affect Maine.

## 2.5 Assumptions

In the event of a release, officials at the Seabrook Facility will notify the New Hampshire State Police. The New Hampshire State Police will notify the New Hampshire Emergency Management Agency who

will notify the Maine Emergency Management Agency Duty Officer. The Department of Public Safety Maine Bureau of Emergency Communications (MBECD) will be the backup point of contact if you can't reach the Maine Emergency Management Agency Duty Officer. The Maine Emergency Management Agency will then notify the Department of Health Human Service Center of Disease Control and the Governor's Office. Notification will include the Nuclear Regulatory Commission emergency classification level. The radiological health authorities from the affected state/province will open lines of communication with Maine.

In the event of a release or emergency at the Point Lepreau Nuclear Plant, officials at the New Brunswick Emergency Measures Organization (NBEMO) will notify the Maine Emergency Management Agency (MEMA).

MEMA will, in turn, alert the Maine Department of Health and Human Services (MDHHS), Center for Disease Control (CDC), Radiation Control Program, Maine Department of Environmental Protection (MDEP), Bureau of Remediation and Waste Management (BRWM), Maine Department of Agriculture, Conservation and Forestry (MDACF), and communicate with the Governor's Office to verify notification and assure that appropriate actions are taken. MEMA will notify each County Emergency Management Agency (York and Washington) within the ingestion pathway zone (IPZ) so they can make proper notifications to the towns located in the IPZ.

MEMA will notify the Maine National Guard 11th Civil Support Team (CST), the Maine State Laboratory and the United States Food and Drug Administration Winchester Engineering Analytical Center (wherein known as WEAC) to assist with Field Sample collection and analysis for the MDHHS/CDC and MDEP. The results will be transmitted to the State Emergency Operations Center for the appropriate state agencies to recommend protective actions to the Governor.



**Figure II-1: Functional Responsibilities Table**

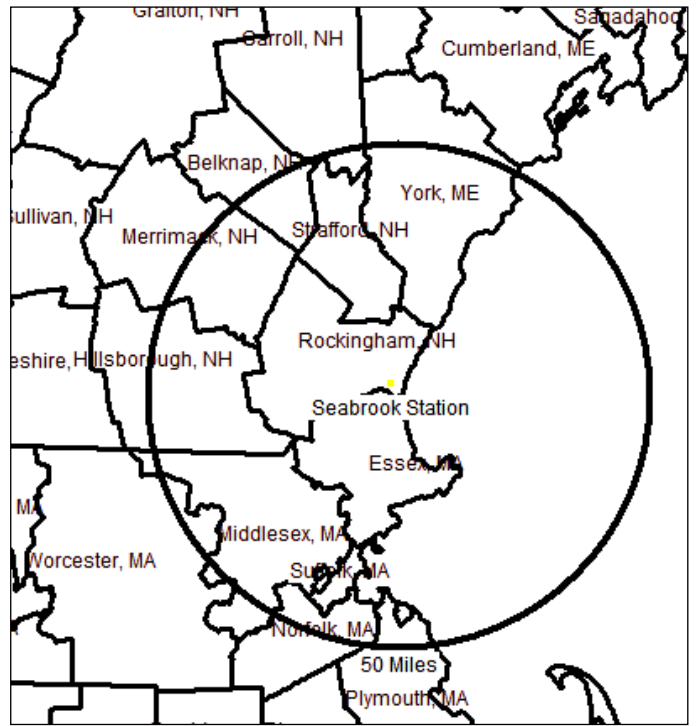
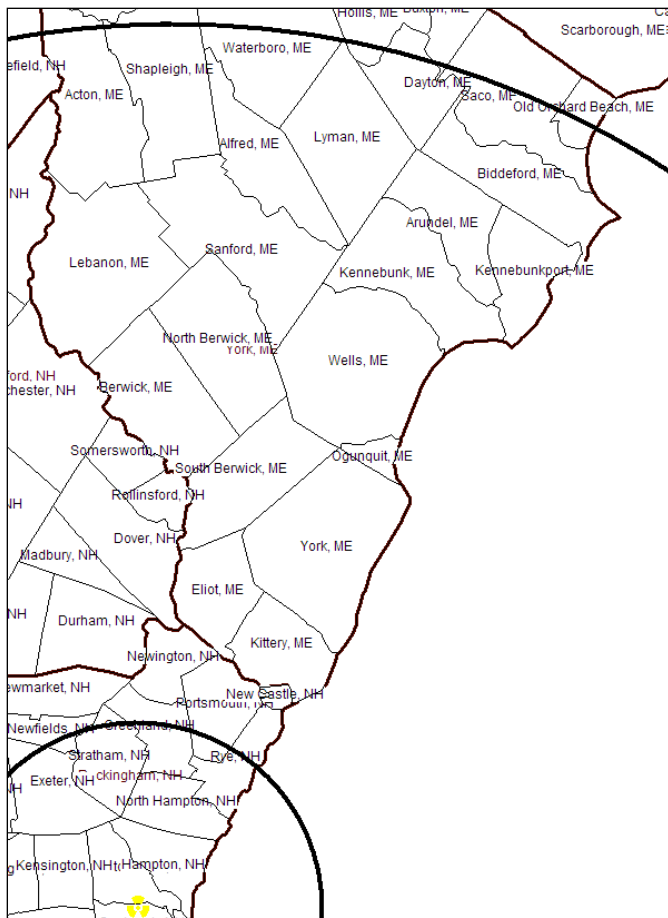
	County Commissioners	County EMA	Red Cross	Local Fire	Local Police	County Sheriff	School District	Maine DPS BEC	State Police	Maine DOT	Maine DEP	DHHS/CDC	MDMR	MDACF	MEMA	Governor's Office
<b>Command and Control</b>	S	S				S			S						C	P
<b>Alerting and Notification</b>	S	S		S	S	S		S	A						P	A
<b>Communication</b>	S	S			S	S		S	S						P	
<b>Public Information</b>		S							S		S	A	S	S	P	S
<b>Fire and Rescue</b>				P	S	S			S							
<b>Traffic Control</b>				S	S	S			P	A						
<b>Emergency Medical Services</b>				P											C	
<b>Law Enforcement</b>					A	A			P							
<b>Public Health</b>											S	P	S	S	C	
<b>Environmental Protection</b>											P	A	S	S	C	
<b>Social Services</b>			S									P				
<b>Transportation</b>		C	S				P								C	
<b>Mass Care Facilities</b>		C	P												C	
<b>Evacuation</b>		C	P	S						S					C	
<b>Radiation Exposure</b>									S		S	P		S	C	
<b>Public Education</b>		S									S	S	S	S	P	
<b>Prevention and Preparedness</b>	S	A	S												P	
<b>Protective Response Training</b>		S									A	P			C	

KEY: P = Principal Organization S = Support Organization C = Cooperating Organization

**Figure II-2  
Seabrook Station Ingestion Zone**

**Seabrook Station  
Ingestion Zone**

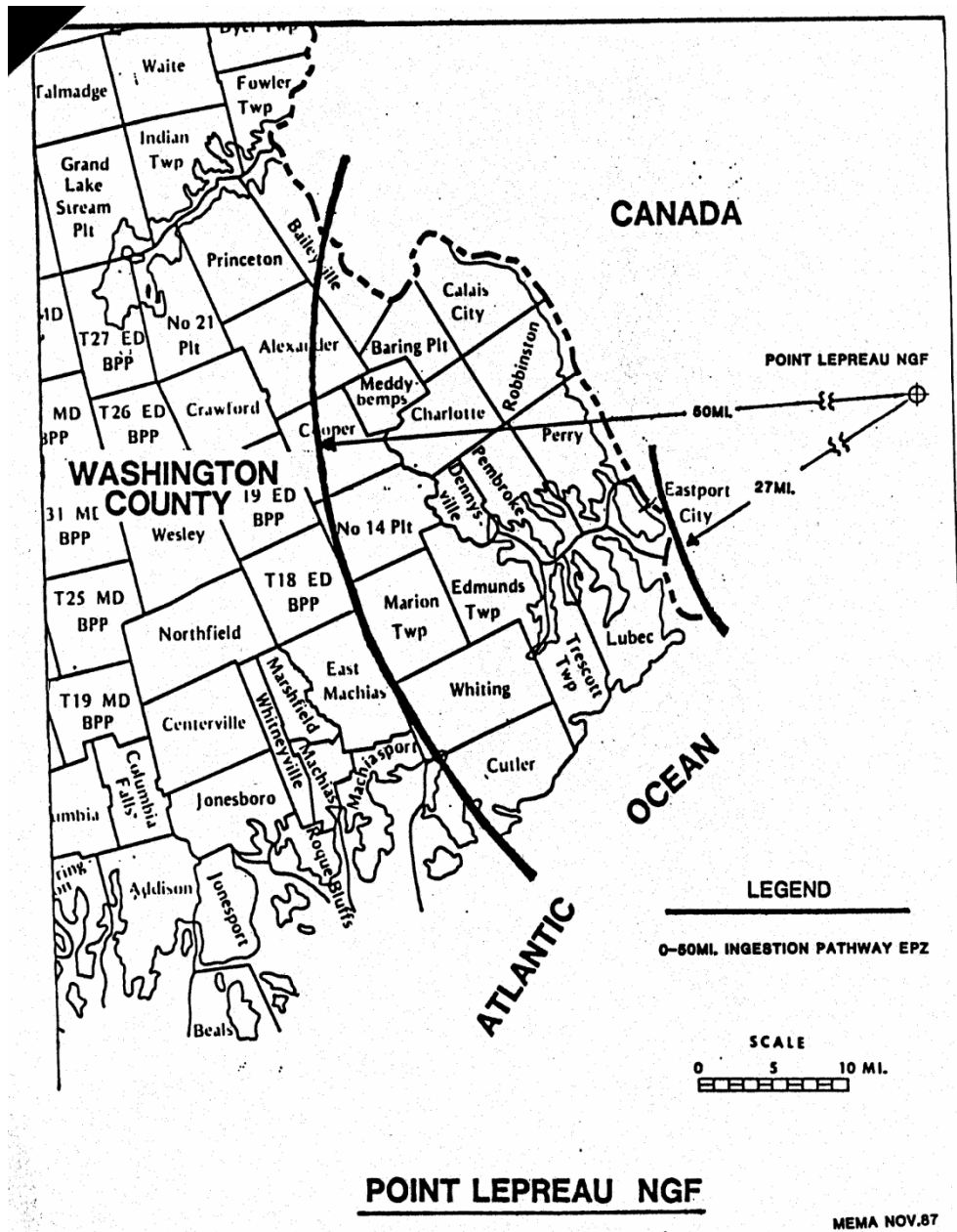
50 Mile radius



**COMMUNITIES INVOLVED IN YORK COUNTY**

- |               |                   |
|---------------|-------------------|
| Acton         | Lyman             |
| Alfred        | North Berwick     |
| Arundel       | Ogunquit          |
| Berwick       | Old Orchard Beach |
| Biddeford     | Saco              |
| Dayton        | Sanford           |
| Eliot         | Shapleigh         |
| Kennebunk     | South Berwick     |
| Kennebunkport | Waterboro         |
| Kittery       | Wells             |
| Lebanon       | York              |

**Figure II-3  
Point Lepreau Ingestion Zone**



Communities include:

- |                   |                  |            |                |
|-------------------|------------------|------------|----------------|
| Alexander         | Cooper           | Lubec      | Plantation #14 |
| Baileyville       | Cutler           | Marion     | Pleasant Point |
| Baring Plantation | Dennysville      | Meddybemps | Robbinston     |
| Calais            | Eastport         | Pembroke   | Trescott       |
| Charlotte         | Edmunds Township | Perry      | Whiting        |

## Section 3: Concept of Operations

### 3.1 General

The objectives of the State of Maine Radiological Emergency Response Plan for the Ingestion Exposure Pathway (hereinafter referred to as the plan) for an incident at the Seabrook Power Station or the Point Lepreau Nuclear Plant (hereinafter referred to as stations) are to delineate Protective Actions to be taken to minimize the consequences to the health and safety of the Maine public.

To accomplish these objectives, emergency preparedness actions taken by the State of Maine and the local communities will be coordinated on a planning and procedural basis. State plans and procedures for the 50-mile ingestion exposure pathway will be employed should it be necessary to sample this pathway or to interdict food, water, milk, livestock, and feed control. The plan comprises a broad overall concept of operations through mutual planning, common notification, and assessment procedures.

When requested by the State, Federal agencies that have regulatory involvement, such as the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the Department of Health and Human Services (DHHS), the U.S. Department of Agriculture (USDA), the Nuclear Regulatory Commission (NRC), the Federal Radiological Assistance Program (RAP) of the Department of Energy (DOE), and the Federal Emergency Management Agency (FEMA), will initiate emergency response actions that are found in the Nuclear/Radiological Incident Annex (NRIA).

The federal agencies for this plan are the NRC and FEMA. While the affected facility will be in close contact with the NRC, it will be the responsibility of the MEMA to request state and federal support, as necessary, from FEMA. Upon receipt of a request from the MEMA Director, FEMA will deploy a State Liaison Officer (SLO) to the State Emergency Operations Center (SEOC). The FEMA Region 1 Liaisons (LNO) aim to deploy within four hours of being directed to by the FEMA Regional Administrator. The SLO will provide a contact for coordination of state and local assistance requests. The State Liaison Officer at MEMA will request assistance via FEMA, Region

The Director of MEMA, or the Director's designee, will act as the State Coordinating Officer (SCO). The SCO will coordinate operating effectiveness between federal, state, tribal, local, volunteer, and private agencies to include tribes.

### 3.2 Direction and Control

#### a. Command Responsibilities

The interactions of responsible state agencies in activating particular ingestion exposure pathway emergency functions are shown on page 9.

### 3.3 Agencies

#### b. Governor

The Governor will assume overall command responsibilities of an emergency affecting Maine, caused by a radiological incident at a nuclear power station. The Governor is responsible for authorizing preventive

and/or emergency protective actions, based upon recommendations from those state agencies that assume coordinating roles in an emergency situation. The Governor shall be responsible for directing the actions of all state agencies. The Governor may proclaim a State of Emergency and may direct operational control of any or all parts of the emergency management forces and functions in the state.

### **c. Maine Emergency Management Agency (MEMA)**

The Director of MEMA will assume overall coordination responsibilities in an emergency situation after notification of a radiological incident by the MEMA Duty Officer or Maine Department of Public Safety. The Director shall provide briefings to the Governor, as requested. The Director also has overall responsibility for the ingestion pathway planning effort and plan maintenance. MEMA has the following emergency responsibilities:

- Disseminating emergency data to other local, state, tribal and federal agencies concerning the nature of the threat, time factors, weather, and capabilities of dealing with the threat.
- Maintaining and operating the State EOC located at 45 Commerce Drive, Augusta, Maine or alternate if compromised. The SEOC shall be appropriately equipped for emergency operations on a 24 hour per day basis and is provided with a reliable emergency backup power supply system. MEMA will develop listings of EOC equipment and conduct periodic testing to ensure facility readiness.
- Providing reliable radio communication network links between all responsible local, State and Federal agencies and the State Emergency Operations Center (EOC) capable of 24 hour per day operation. The EOC also has communication links with the National Weather Service, the Federal Emergency Management Agency (FEMA), and support agencies identified in this plan.
- Coordinating services, materials, support, and manpower to any of the agencies having emergency response functions to ensure the saving of lives and the protection of property, to the greatest extent possible.
- Providing radiological exposure control equipment and briefings for emergency workers assigned to field operations.
- Coordinating the dissemination of public information via email or direct personal notifications for implementation of Protective Actions in the event of a Site Area Emergency or a General Emergency. Twenty-four-hour Emergency Alert System (EAS) and public information capability exists at the State EOC under the control of MEMA. EAS operations are governed under the State EAS plan (under separate cover) and MEMA procedures.
- Public information shall include an explanation of radiation contamination, contact points for additional information, and instructions on protective measures. This information will be disseminated via media releases, EAS (360 characters only), and, if necessary, direct notification.
- Maintain farm and food processor information pamphlets on-line at the MEMA website (Emergency Information for Farmers, Food Processors and Distributors, 2020 edition) and assist MDACF with distribution of printed copies, as necessary.
- Offering an annual informational meeting to the media and county emergency management staff for review of the emergency plan. Detailed procedures for the dissemination of public information are contained in Planning Standard G of the plan and ESF-10 of the State Emergency Operations Plan (EOP).
- Preparing plans, training events, exercises, and programs to increase and improve response capabilities.

- MEMA informs the County Emergency Management Agencies of ongoing situations. Each County Emergency Management Agency has direct communications to the State EOC via telephone, computer through the internet, and radio. The MSCOMMNET and National Alert and Warning System and amateur radio system provides backup. The communities within the 50-mile ingestion exposure pathway for each nuclear power station are listed in Table II-2 and Table II-3.
- MEMA will assist with deploying State funded hazmat teams to help with decontamination in IPZ areas, if needed.

#### **d. Maine Department of Health and Human Services Center for Disease Control (MDHHS/CDC) Radiation Control Program**

The Director of MDHHS/CDC will, upon notification by MEMA of a radiological emergency, assume responsibility as the key agency for command and coordination of Emergency Protective Actions. Emergency Protective Actions which Maine Department of Agriculture, Conservation and Forestry, Maine Department of Marine Resources, and Maine Department of Environmental Protection are responsible for are public safety, food, water, aquaculture, and milk control.

Maine DHHS/CDC has the following responsibilities in the event of an ingestion exposure pathway radiological emergency affecting the public:

- Responding to any request for assistance in order to protect the public health and preserving the ingestion exposure pathway environment from the effects of radioactive contamination.
- Establishing Protective Action Guides (PAGs) for Maine based on the U.S. Environmental Protective Agency and U.S. Food and Drug Administration PAGs.
- Recommending appropriate protective actions after assessment has been completed.
- Specifying sample location, identifying type and quantity for collection, and determining sample analysis accuracy and count times.
- Deploying emergency response teams to affected areas in coordination with Maine Department of Environmental Protection and Maine Department of Agriculture Conservation and Forestry to collect milk, processed food, and drinking water samples for radiological analysis which will determine the need for protective actions.
- Ensuring that contaminated food, milk, and drinking water do not reach the ingestion exposure pathways. MDACF is responsible for directing and coordinating activities affecting distribution of food, milk, and drinking water at the wholesale and retail level. These activities will include enforcing embargoes, establishing food control stations at borders with adjacent states, and determining the need for exposure control areas within the state.
- Appointing a Technical Liaison Officer to coordinate federal agency technical response activities.
- Potential shortfalls for Radiation Control include not being able to get enough staffing to assist with collection of samples and transportation to and from sites and the lab. Solution to the shortfalls include asking for help from MDEP, Maine Department of Transportation (MDOT), State Police, and reaching out to federal agencies for the long term.

#### **e. Maine Department of Environmental Protection (MDEP)**

Upon notification by MEMA of an emergency situation, the Commissioner of MDEP will assume responsibility as the key agency for emergency Protective Actions related to private drinking water protection and environmental protection.

Functions of these Protective Actions to be performed by MDEP are:

- Take environmental samples and transport for testing.
- Assisting with screening of plume deposition.

#### **f. Maine Department of Agriculture, Conservation, and Forestry (MDACF)**

Upon notification by MEMA of an emergency situation, the Commissioner of MDACF will assume responsibility as the key agency for emergency Protective Actions related to livestock and feed control. The Animal Health program of MDACF will give primary guidance for livestock control, and the Quality Assurance & Regulations (QAR) division of MDACF will assume primary responsibility for feed control.

Functions of these Protective Actions to be performed by MDACF are:

- Deploying emergency response teams to affected areas in coordination with the DHHS/CDC to collect field samples.
- Controlling livestock and feed at the farm level to determine if radioactive contamination is above predetermined concentrations.
- Controlling farm produce at the farm level in the event that analysis of samples reveals radioactive contaminants above predetermined concentrations.
- Ensuring that contaminated food or milk does not reach the ingestion exposure pathways. MDACF is responsible for directing and coordinating activities affecting distribution of food and milk at the farm level.
- Maintaining addresses and listings of farms for rapid distribution of farm information pamphlets, as necessary.

#### **g. Maine National Guard 11th Civil Support Team and Winchester Engineering Analytical Center (WEAC).**

The 11 Weapons of Mass Destruction-Civil Support Team (11 WMD-CST) is a National Guard unit in Maine that is part of the Department of Defense Chemical Biological Radiological Nuclear Joint Task force (AKA. CBRN Response Enterprise or CRE). The nation-wide WMD-CSTs' mission is to identify CBRN agents and substances, assess current and projected consequences, advise on response measures, and assist with requests for additional CRE asset support.

The WMD-CST works with and coordinates with local, state and federal agencies in response to CBRN incidences, such as local first responders, the Maine Emergency Management Agency, the Maine Department of Environmental Protection, the Radiological Control Program and the Health and Environmental Testing Laboratory sections of the Maine Department of Health and Human Services as well as federal response and investigation agencies.

The WMD-CST possesses communication capabilities for internal communications and can assist in coordinating communication between agencies. The WMD-CST possesses personal protection equipment and decontamination gear and equipment for protection of its members. They have the following emergency responsibilities:

- The WMD-CST possesses radiological hazard assessment and isotope identification equipment. The WMD-CST can assist with collection, assessment and communicating radiological hazard measurements and other radiological data to other agencies. The Department of Energy (DOE) radiological response teams are key partners for additional assessment and guidance during a radiological hazard incident. The WMD-CST can assist first responders in requesting and communicating with additional radiological response forces, such as the DOE Radiological Assistance Program and other response elements.
- The Maine State Laboratory, other qualified state laboratories, and the Winchester Engineering Analytical Center (WEAC) of Winchester, MA will perform laboratory analysis of food, water, and milk samples for low levels of radiation. Results of the samples analysis will be provided to MDHHS/CDC for evaluation.

#### **h. Maine Department of Marine Resources (MDMR)**

Upon notification by MEMA of an emergency situation, the Commissioner of MDMR will assume responsibility as the key agency for emergency protective actions related to monitoring and protecting the aquaculture industry from radioactive contamination. Functions of these Protective Actions performed by MDMR are:

- Monitoring the Maine aquaculture/fishing industry.
- Closing the fishery to harvesting or outdoor storage of the catch, if necessary and preventing the distribution of contaminated catch.
- Collecting samples of marine organisms for testing.
- Will send a representative to the State EOC when notified of an incident.

#### **i. Maine Department of Inland Fisheries and Wildlife (MDIFW)**

Upon notification by MEMA of an emergency situation, the Commissioner of MDIFW will assume responsibility as the key agency for emergency protective actions related to monitoring and protecting the fishing and hunting public from radioactive contamination. Functions of these Protective Actions performed by MDIFW are:

- Monitoring recreational fishing and hunting.
- Collecting samples of fish and wildlife for testing.
- Provide information to the recreational hunting /fishing public in coordination with MDHHS/CDC.

#### **j. Maine National Guard (MENG)**

The Maine National Guard can be available for mission assignments, such as security, public information, and emergency communications. MEMA will request MENG assistance through the National Guard Liaison Officer at the EOC.

#### **k. Maine State Police**

The New Hampshire Office of Emergency Management or New Brunswick Emergency Measures Organization will notify the Maine Department of Public Safety of a radiological emergency affecting Maine if the MEMA Duty Officer can't be reached. Upon receipt of this notification, the Maine State Police have the following responsibilities:

- Providing 24-hour backup notification capabilities to the Radiological Control Program and the Maine Emergency Management Agency in the event of a radiological emergency. Details of



notifications to be made and appropriate telephone numbers are contained in plans and procedures located at the Augusta DPS Bureau of Emergency Communications.

- Dispatching a State Police Liaison Trooper to the State EOC as an Emergency Response Team member.
- Review the Traffic Control Plan and take appropriate actions based on the Emergency Action Level notification.
- Dispatching the State Police Incident Management Assistance Team mobile command post and personnel to manage the traffic control points and track dosimeter readings. Create team website with live information to be shared with partners once incident occurs.

## **I. Federal Agencies**

Federal support is anticipated only when local community, county, and state resources for emergency response have been exhausted. The primary resource for federal assistance is through the Nuclear/Radiological Incident Annex (NRIA). The NRIA has been developed by the Federal Emergency Management Agency (FEMA) and eleven other federal agencies have provided written concurrence.

The signatory NRIA agencies are:

- Federal Emergency Management Agency
- Department of Transportation
- Nuclear Regulatory Commission
- Environmental Protection Agency
- Department of Energy
- National Communication System
- Department of Agriculture
- Department of Defense
- Department of Commerce
- Department of the Interior
- Department of Health and Human Services
- Department of Housing and Urban Development

Any requests for federal support of state emergency response activities would be made by the Director of MEMA (for non-technical assistance) and the Director of Maine CDC (for technical assistance) to FEMA, Region I. A FEMA, Region I State Liaison Officer (SLO) will be dispatched to the Maine EOC, as requested.

## **m. Private Agencies**

Private agencies involved in radiological emergency response are listed below with their functions:

- Seabrook Power Station – assists MEMA and MDHHS/CDC in secondary assessment.
- Point Lepreau Nuclear Generating Station – assists MEMA and DHHS/CDC in accident assessment.
- American Red Cross – assists MEMA as requested.

## **n. Local Agencies**

Local agencies that may have radiological emergency response functions are shown in Figures II-1, page 6.

Town officials in affected local communities will be notified by respective County EMA office of the emergency and advised of any action deemed necessary.

Local water system managers assist MDHHS/CDC in water control, as necessary. The communities affected by the nuclear power plants are listed in Figure II-2 and II-3, pages 7 & 8.

### 3.3 Emergency Classification System

A standard emergency classification and action level scheme, the foundation of which includes facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by the facility licensees for determinations of minimum initial offsite response measures.

The recognized classification system has four Emergency Action Levels (EAL's):

- Unusual Event (Not recognized by Point Lepreau, Canada)
- Alert
- Site Area Emergency
- General Emergency

For each of the following Emergency Classification Levels, the initiation times for various actions are given as a planning aid. These are reasonably realistic times and are given as a range because of the variety of scenarios that can be assumed. The time required to completely perform a particular Protective Action can vary with the time of day, the area affected, weather, and available resources. Time for completion also depends greatly on the extent of the area to be covered. Annual reviews are done to determine the level of response that is needed at the State, County, and local level.

#### a. Unusual Event

- Events are in progress or have occurred which indicate potential degradation in the level of safety of the plant. No release of radioactive material requiring off-site response or monitoring is expected unless further degradation occurs.
- No actions required by the State of Maine however the MEMA Duty officer will monitor the situation and report to the MEMA Director of Operations with any changes.

#### b. Alert

- Events are in process or have occurred which involve an actual or potential substantial degradation in the level of safety of the plant. Any releases of radioactive material from the plant are expected to be limited to a small fraction of the EPA Protective Action Guides (PAGs).
- Notification to Maine by New Hampshire or New Brunswick – within the first hour of the event.
- The ALERT emergency classification level will not result in consumer product contamination. However, it involves the following functions:
  - Accident Assessment – None
  - Notification – Provision of updates to key agencies
- EOC Activation - Partial activation with staffing based on initiating criteria and actual other events ongoing.

### c. Site Area Emergency

- Events are in process or have occurred that result in actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed the EPA PAGs except near the site boundary.
- The initial incident notification time should be within the first hour by adjoining state or provincial authorities. The anticipated assessment actions will begin to yield results within 4 hours to several days if a release toward Maine is occurring and the escalation of the event is imminent.
- The initiation of consumer product control, based on the above time to contaminate the food pathway, is 2 hours to several days.
- The SITE AREA EMERGENCY classification level could result in consumer product and livestock feed contamination. It involves the following functions:
- Accident Assessment – Activation of field monitoring/sampling teams in the event of a release toward Maine.
- Notification – Provision of updates to key agencies and activation of the State EOC.
- Protective Actions – Food, water, milk, livestock, and feed control. In most cases, actions for the SITE AREA EMERGENCY classification level will range from no action to preventive actions.

In this emergency classification level, the EOC will be activated and affected agencies may be notified dependent on release and wind direction. The public will also be advised by media releases. Sampling teams will be placed on standby or deployed. Precautionary actions such as placing milking animals on stored feed may be implemented.

### d. General Emergency

A general emergency involves actual or imminent substantial core damage or melting of reactor fuel with the potential for loss of containment integrity. Radioactive releases during a general emergency can reasonably be expected to exceed EPA PAGs for more than the immediate site area.

- The initial incident notification time should be within the first hour, by adjoining state or provincial authorities.
- The anticipated assessment actions will begin to yield results within 2 hours, to several days.
- The initiation of consumer product control for the contaminated food pathway, based on the above timeline, is 2 hours to several days.
- The GENERAL EMERGENCY classification level involves the following functions:
  - Accident Assessment – Activation of field monitoring/sampling teams.
- Notification and Communication – Provision of updates to key agencies, field communication, and establishing intra, interstate or international communication.
- Protective Actions – Actions for food, water, milk, livestock, and feed control will range from no action to emergency actions such as interdiction, depending on release amount, duration, and wind direction.

In this emergency classification level, the EOC is activated via the HAN and all affected agencies are activated.

### 3.4 Notification Methods and Procedures

The State of Maine in the event of plan activation in either New Hampshire (NH) or New Brunswick will receive initial notification from either NBEMO or NH Office of Emergency Management. This initial notification will take place within one hour of their receiving notification from the affected plant. Notification will be received by the MEMA Duty Officer or the Department of Public Safety (DPS) Maine Bureau of Emergency Communications answering point located in Augusta within one hour. The MEMA Duty Officer or DPS Maine Bureau of Emergency Communications, in turn, by their plans and procedures will inform the Maine Emergency Management Agency Director of Operations and the Maine Radiological Control Program of the nature of an incident as soon as notification is received. Notification will include the emergency classification level. The radiological health authorities from the affected state will open lines of communication with Maine.

MEMA will in turn, confirm the alert with NH Emergency Management or NB EMO, Maine Department of Health and Human Services (DHHS), County Emergency Management Agencies and communicate with the Governor's Office to verify notification and ensure that appropriate actions are taken. MEMA will keep in constant contact via WebEOC, telephone, and email with the County Emergency Management Agency to make sure information and messaging is consistent.

Based on the event, the MEMA Director or the Director of Operations will open the State Emergency Operation Center (SEOC) which is located at 45 Commerce Drive in Augusta, Maine or alternate if compromised. The Director of Operations will notify SEOC personnel by using the HAN system and instruct them on what our next steps will be. For an Unusual Event, MEMA will be monitoring from a desk or at home. For an Alert, MEMA will have the SEOC partially staffed. For a Site Area Emergency, MEMA will have a full SEOC activation which includes MEMA staff and Emergency Response Team (ERT) members. For a General Emergency, MEMA would have a full SEOC activation. For levels 3 and 4 MEMA would be staffed for 24 hours.

Maine Radiological Control Program will notify field teams. All equipment will be checked and distributed depending on the event. MEMA will notify Maine DHHS to make sure their plans and procedures are being activated with regard to environmental sampling and assessing hazards for food sources.

The MEMA Public Information Officer (PIO) in the Joint Information Center (JIC) will utilize Maine 211; County Emergency Management Agencies and State public notification systems, media stations via TV and radio, to notify the public in the affected areas if protective actions should be required. MEMA will monitor media releases from the affected States and Province where the release is occurring to ensure information corresponds with their information on releases. If PAG's are required, the MEMA PIO will disseminate that information within 15 minutes of an emergency declaration.

MEMA will coordinate distribution of pre-incident, pre-printed informational pamphlets, as needed to the agricultural community including farmers, food processors, producers, and distributors, via media, website, email, and social media platforms. These materials will contain general information on

radioactive contamination and protective measures, as well as specific information for farmers, food processors, and distributors. Contact points for additional information will also be included.

Maine Dept. of Agriculture/Conservation and Forestry, MEMA, and County EMA's maintain current listings of farms, food processors, and distributors which will be utilized to mail or directly deliver informational materials to the affected community.

### **3.5 Emergency Communications**

MEMA will notify our response and organizational personnel and utilize its email platform as the primary communication and notification method. Notification will come from the Maine Emergency Management Agency (MEMA) Duty Officer. The secondary communication method will be via telephone which will utilize cellular devices.

Twenty- four-hour coverage is provided by calling the MEMA Duty Officer pager at 207-851-8898. An alternate contact would be the Dept. of Public Safety, Bureau of Emergency Communications at 207-624-7076.

Primary communication method to the affected areas would be made by the State of Maine email delivery system. A separate system that can be used is the MEMA's IPAWS system (Integrated Public Alert & Warning System).

Primary radio communications to the County governments in the affected area will be made by the State digital trunked system. Notifications to the locals and Counties will be made by utilizing the MEMA Communications Officer via phone.

A redundancy method of communication will be made by MEMA's National Alert and Warning Systems (NAWAS) alerting numerous disciplines by the MEMA Communications Center.

The redundancy radio communications to the affected areas will be made by Amateur Radios (HAM) from MEMA's Radio Center.

MEMA will contact Federal partners utilizing email, phone, and FEMA National Radio System (FNARS). The FNARS utilize a high frequency radio that is capable of voice, phone, and chat, that is located at the Communications Center at MEMA and the FEMA Regional Response Coordination Center in Maynard, Massachusetts.

Primary communication to radiological teams will utilize the Maine State Communication Network (MSCommNet) VHF digital trunked system with mobile radios after a talk group has been established by the COML or DISRC. Other radiological teams can utilize mobile radios on the RegionNets but will depend on location. Other methods would be email, cellular, and Satellite phones.

The MEMA Duty Officer will notify the Director of Operations and a decision will be made to activate the State Emergency Operations Center (SEOC). A MaineHAN notification will be sent out to staff to

activate the SEOC. Notification to Radiological units will be made via telephone either landline and/or cellular devices.

Communication to Nuclear Regulatory Commission (NRC) from MEMA will be made via telephone and/or email. The NRC will be contacted by the facility itself.

Primary communication between ambulances, hospital and medical facilities is cellular devices with backup VHF mobile to base stations.

Primary communication between MEMA and hospitals and medical facilities will be made via phone. Alternative methods will be radio, email, HAM radio, and satellite phones.

The IPAWS system is tested monthly in the MEMA Communications Center through the FEMA approved platform. The RegionNet system is tested in the Communications Center three times a week with each County Emergency Management Agency. The MEMA Duty Officer tests the HAN system each month with MEMA staff and County EMA's and tests the satellite phone periodically to make sure all are in working order and responses are received. Normal communications between hospitals and medical facilities ensure constant reliable connectivity to all units and are done at the local level.

### **3.6 Public Information Policies**

Procedures and policies facilitating access to and timely dissemination of information have been established as detailed in Maine Emergency Support Function (ESF)-15. The following general policies apply:

All news releases addressing State policy decisions as well as releases not of an immediate lifesaving nature shall emanate from the Governor's Office or be approved by a designee of that office for release through the Joint Information Center (JIC).

Each Nuclear Power Plant shall maintain responsibility for the release of information to the news media regarding on-site conditions, and other corporate information, including information concerning their employees.

The Governor's Communications Director or his/her designee will serve as the chief Public Information Officer (PIO) and will be assisted by a team of other Public Information Officers from state agencies. Process all news in a timely and accurate manner. A Joint Information Center (JIC) will be established at the State Emergency Operations Center (SEOC) to provide information for release using all available and appropriate communications channels.

All organizations with emergency responsibilities in this plan will coordinate requests for information with the JIC, once established. A State Media Center may be established at the State House in Augusta, or in a media facility adjacent to the SEOC at the MEMA Offices located at 45 Commerce Drive in Augusta.

A Maine PIO may be dispatched to the JIC in Portsmouth, NH or to Fredericton, NB to provide the State of Maine PIO team with NH, MA or NB public information releases, news releases and EAS messages

and utility briefings as appropriate. Such materials will be shared electronically with the JIC in accordance with established protocols.

State agencies or individuals who are required to release any official public information will coordinate with the JIC at the State of Maine EOC.

- **Help Line:** A single toll-free telephone number, which can be reached throughout the State of Maine, will be made public in order to respond to public concerns and provide information and emergency instructions. Maine 211 is expected to be used to provide this service, in accordance with established protocols. However, because of the sensitive and complex nature of a potential radiological emergency, other or additional arrangements for a Help Line may be directed by the Governor or his/her designee.
- **Brochures:** Printed information on the effects of radiation and methods for preventing radiological contamination of food products will be distributed to farmers and food processing facilities within the Maine portion of the IPZ by the University of Maine Cooperative Extension Service and/or the County EMAs and is available for download from the MEMA website.
- **Radio/TV:** In the event of an accident at a Nuclear Power Plant, News Releases will be the primary means of providing the public with information and instructions. If appropriate, the Emergency Alert System (EAS) will also be used for delivering protective action information to those affected. Use of EAS will be in accordance with the State of Maine EAS plan using the FEMA IPAWS system.

News releases that contain Protective Action Decisions and detailed implementation instructions for the ingestion pathway will be formulated in the SEOC in Augusta and coordinated as needed with New Hampshire or New Brunswick. Once the message is prepared it will be reviewed and approved by appropriate Emergency Response Team members and by the Governor's representative/designee at the SEOC before release.

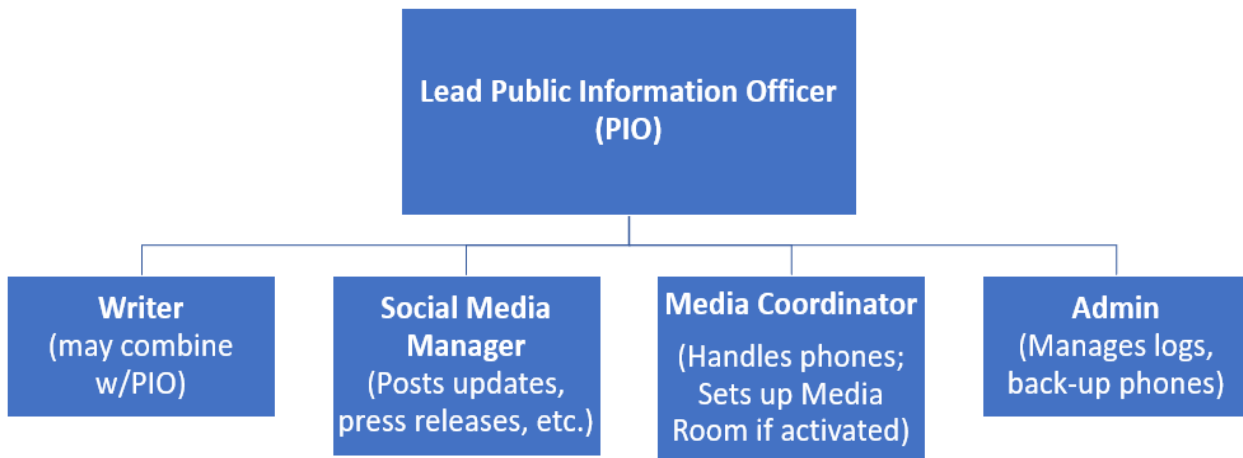
All news releases and EAS messages will also be published on the MEMA website and distributed directly to news release subscribers as well as through all other available and appropriate communications channels to include social media.

Information may also be provided by National Oceanic and Atmospheric Agency/ NOAA Weather Radio Stations.

The MEMA PIO will put together media kits in the event of an incident at Seabrook or Point Lepreau. The kits will consist of a checklist, press release templates and a brochure. A social media post with visuals will be put together and shared with the media. Depending on the need a press conference in the MEMA media room could be held and the PIO will hand out talking point to the media present.

As the incident expands the MEMA PIO would contact additional PIO members from the Governor's office and from our ERT members to include DHHS, DEP, Department of Veterans and Emergency Management (DVEM), Public Safety and DOT to assist in the JIC. If needed those members could assist the JIC virtually. Please see the JIC organization chart below.

# Joint Information Center (JIC) Organization



### 3.7 Emergency Facilities and Equipment

The Emergency Response Facilities utilized in the event of an accident at Seabrook Station or the Point Lepreau Facility that has the potential of impacting the State of Maine are described in this section.

#### a. State Emergency Operations Center

The State EOC (SEOC) is located at 45 Commerce Drive in Augusta, Maine within the Central Maine Commerce Center. In the event of a Seabrook Station or Point Lepreau accident, representatives of the State agencies shown on page 47 would proceed to the SEOC. Emergency Response Team (ERT) members would be notified by the Maine Health Alert Network (HAN) or by telephone. Emergency response is directed from the SEOC. The SEOC has space for more than 50 staff including 20 state and federal agencies to coordinate in the event of an incident. Additional rooms and equipment are available adjacent to the SEOC in the same building. The primary means of communication with the other emergency response facilities is by telephone or computer via the internet. Two-way radio, amateur radio, cell phones, and satellite phones are back-up means of communication. The SEOC has back-up heat and power supplied by one mobile generator located on-site. The SEOC is a secure facility and requires permission or key cards to access the facility. To gain access to the building you must be on the list of allowed personnel and show proper identification. The Director of Operations and Response is responsible for maintaining operational readiness of the SEOC. Should the SEOC be disabled or unavailable an alternate SEOC will be established at the Maine Criminal Justice Academy located at 15 Oak Grove Road, Vassalboro, ME. A layout of the facility is not available as the room location can change depending on the facility use. See **Appendix A. Emergency Operations Center Footprint.**



## **I. Activation and Staffing of the SEOC**

MEMA has a Duty Officer on duty 24 hours a day, 7 days a week and 365 days a year. The duty officer would receive initial notifications from either New Hampshire EMA or New Brunswick EMO and is required to open the SEOC within 1 hour of notification of an incident. The Duty Officer can activate the Maine HAN notification system to bring MEMA Staff and members of our ERT to the SEOC within 2 hours. The SEOC is operational when staff can effectively communicate with the affected facility and staff the Operations and Planning desks in the SEOC. The SEOC would be fully operational within 2 hours of notification. A staff/position roster is available as part of our SEOC Utilization Plan and Emergency Operations Plan and will list out the two 12-hour EOC shifts or staffing shifts can be decided upon by the Director of Operations. The Finance Section or Logistics Section will be in control of the daily sign in rosters and maintain its location.

### **b. York County Emergency Operations Center**

The York County EOC is located 149 Jordan Springs Road next to the York County Jail in Alfred, Maine. Personnel from York County Emergency Management Agency and associated response agencies would proceed to the County EOC in the event of an accident at Seabrook Station. The York County EOC may be used as a State Incident Field Office (IFO) and as a staging area for state field teams. York County EMA will deploy a staff member to serve as a liaison to Seabrook at the Portsmouth Emergency Center, in addition, upon activation YCEMA will immediately notify all towns in the IPZ of the event. YCEMA in coordination with MEMA will prepare press release information and be prepared to answer questions from the media. All towns in York County will be notified because of the potential of interruption of traffic flow and rerouting. YCEMA will plan for the distribution of dosimeters and for the activation of the traffic control plan. YCEMA will start the planning process for notification of farmers and potential water sampling missions. YCEMA maintains 40 DMC 3000 dosimeters at their facility and will maintain maintenance of those on an annual basis.

### **c. Washington County Emergency Operations Center**

The Washington County EOC is located at 28 Center Street in the EMA building in Machias. Personnel from Washington County Emergency Management Agency and associated response agencies would proceed to the County EOC in the event of an accident at Point Lepreau. The Washington County EOC may be used as a State Incident Field Office (IFO) and as a staging area for state field teams. Washington County in coordination with MEMA will prepare public alerts to be put out via phone, email, media.

### **d. Emergency Operations Facility (EOF)**

An Emergency Operations Facility (EOF) is located in Portsmouth, New Hampshire. The EOF is operated by Seabrook Station and may be staffed by representatives from Seabrook Station, Federal agencies and State agencies from New Hampshire, Massachusetts, and Maine. A Radiological Health Specialist or Technical Liaison Officer from Maine Radiation Control Program (MRCP) will proceed to the EOF in the event of an accident at Seabrook Station that has the potential to affect the State of Maine. MEMA will assign a staff liaison to the NH EOC in Concord during an incident to offer assistance and to provide information to the Maine EOC during an incident.

An Emergency Operations Facility will be established at the New Brunswick Emergency Measures Organization (NBEMO) 65 Brunswick Street, Fredericton, New Brunswick for any incident at the Point Lepreau facility. The NBEMO is staffed by representatives from Point Lepreau, Canadian federal and

New Brunswick provincial officials. MEMA will assign a staff liaison to the NBEMO EOF during an incident that has the potential to affect the State of Maine.

### **e. Emergency Equipment and Instruments**

MEMA stores and maintains a stockpile of dosimetry (direct reading dosimeters) and thermoluminescent dosimeters (TLD) at MEMA in Augusta. We have 60 dosimeters and TLD's located at MEMA in Augusta. A minimum of 40 will be available at all times, one for each traffic control point and 10 spares. MEMA sends out 20 of the 60 dosimeters to be calibrated annually. All dosimeters will be inspected quarterly for proper operation. Maine DHHS/CDC has an additional 10 electronic direct read dosimeters at their Augusta office for their personnel. Our traffic control plan designates 17 traffic control points that will be staffed by state troopers, county deputies, local police officers, local fire departments or Maine DOT staff during an event. The traffic control points will serve to direct people evacuating the Seabrook area to the proper sheltering area. MEMA is located approximately 1.5 hours from Kittery and approximately 5 hours from Calais and MEMA will coordinate with the Maine State Police to ensure the dosimetry and TLD's get to those areas once a notification is received of an Alert at the Nuclear Power Plant.

The State of Maine does not maintain any portal monitors; however, US Customs and Border Protection operate and maintain portal monitors at border crossings along the Maine/Quebec/New Brunswick borders. Portal monitors are available at the border crossings in Calais, Vanceboro, and Houlton, the most likely points of entry for people evacuating an incident at the Point Lepreau facility.

In addition to direct reading dosimeters, thermoluminescent dosimeters (TLD) and electronic direct read dosimeters, DHHS/CDC maintains a list of field monitoring and radiation sampling equipment listed in the Attachment A. Location of the equipment is listed in the tables on pages 31-33. Calibration and maintenance of equipment is kept at the DHHS/CDC office and provided in the annual letter of certification.

### **f. Emergency Kits**

Emergency kits for radiological incidents at the Seabrook plant are stored at the Maine Emergency Management Agency in Augusta. There are 60 kits consisting of two potassium iodide (KI) tablets, a TLD badge for a permanent record of exposure and an electronic direct read dosimeter in each kit. The kits are distributed to law enforcement officers and fire departments in York County that will staff the 17 traffic control points to direct evacuation. The law enforcement officers include state police, county sheriffs, and local municipal police. Each of the officers and fire departments will be equipped with a kit and they will already have the required flashlights, cell phones and two-way radios for communication. Maine DOT and local public works departments will supply the required barricades and orange cones to provide additional traffic control at the 17 control points. Additional kits are available at the MEMA Office in Augusta and can be transported to Washington County in the event of an incident at the Point Lepreau Facility.

### **g. Health and Environmental Testing Laboratory**

The Health & Environmental Testing Laboratory (Also referred to as the Public Health Laboratory) within the state Department of Health and Human Services will receive samples of food, milk, water, vegetation, soil, etc., collected in the field by the field teams in accordance with Maine Radiological Control Program Procedures. Samples will be processed in accordance with priorities established by

MRCP accident assessment personnel.

Testing of samples will be performed at the Health & Environmental Testing Laboratory, which is located at 221 State Street in Augusta. If the volume of samples exceeds the capacity of the Laboratory, samples will be dispatched to nearby laboratories available through the New England Compact or the Federal Radiological Emergency Response Plan. Additional field sampling and laboratory analysis equipment maintained by DHHS/CDC Radiation Control Program and the Public Health Laboratory include. **See Appendix B. Laboratory Analysis Capability – State of Maine and Appendix C. Radiation Evaluation Equipment – State of Maine.**

#### **h. Sample Transport and Analysis of Radiological Data**

Radiological samples taken in the field will be transported to the Public Health Laboratory by DEP Response Services Technicians or by DHHS/MRCP. The Public Health Laboratory will report lab data to the SEOC by email. DHHS/MRCP will assess the field monitoring and laboratory data at the SEOC. All field monitoring data will be relayed to the SEOC for analysis via phone.

#### **i. Utility Joint Media Center**

The Seabrook Media Center is located at the Emergency Operations Facility in Portsmouth, New Hampshire. This facility is utilized to prepare and distribute news releases and to permit exchanges of information among the designated spokespersons for Florida Power and Light/Seabrook Station, State agencies and Federal agencies. News releases prepared by one of the designated spokespersons will be reviewed with their counterparts before release to the news media. A Maine PIO, if released may proceed to the Media Center at the JIC in Portsmouth, NH in the event of an accident at Seabrook Station.

#### **j. Maine Media Center**

The Maine Media Center (JIC) is located 45 Commerce Drive, Central Maine Commerce Center, in Augusta, unless otherwise directed by the Governor. This facility is used to distribute news releases to the press from the State of Maine. If available a member of the Governor's Press office will proceed to the Maine Media Center in the event of an accident at Seabrook Station.

### **3.8 Accident Assessment**

This section describes the responsibilities for assessing the offsite impacts of a radiological emergency at a nuclear power plant or spent fuel storage location and its effects on the health and wellbeing of the residents and visitors of Maine. The State's capability for making accident assessments and performing field monitoring are described and carried out according to the Maine Radiological Control Program (MRCP) standard operating procedures.

#### **a. Initial Assessment**

The Nuclear Power Plant or licensee will provide accident assessment and protective action recommendations to the State Emergency Response Team (ERT). The results of the assessment will be reported to state and local organizations in accordance with MRCP procedure 2.01.

#### **b. Field Monitoring**

##### **I. Resources and Capabilities**

Field monitoring within the Plume Exposure Pathway around nuclear power plant sites is provided by health physicists from the MRCP. Laboratory support and equipment available for use by the field monitoring team is identified on page 49-50. The specific systems and methods for radiation measurement, location, tracking of the radioactive plume, airborne radioiodine concentration measurement, estimating integrated dose from actual and projected dose rates are outlined in the MRCP's standard operating procedures and the Radiological Health Specialist Checklist. The Maine Health and Environmental Testing Laboratory (HETL) will serve as the sole point for receiving samples for analysis during the initial phase of emergency response.

## **II. Activation of Field Teams**

Upon receipt of notification of an emergency, the Maine Radiological Control Plan Manager will contact the MEMA Duty Officer for verification and then to determine what, if any, protective actions have been implemented. The MRCP Manager will use existing information in accordance with Department of Health and Human Services procedures to evaluate the potential for offsite exposure and to determine the capability of Protective Actions. Based upon the evaluation, the MRCP Manager will determine whether to activate emergency field teams. If field teams are activated, then the Field Team Coordinator will follow the MRCP procedure 2.60 for field team assignments and briefing.

## **III. Coordination of Assessment and Monitoring Activities**

The coordination of field assessment and monitoring activities is the responsibility of the MRCP under Emergency Support Function (ESF) 8 (Public Health and Medical Services). The Radiological Health Specialist and the Field Team coordinator will maintain contact with the field teams by phone for relay of data collected by the field teams to the State Emergency Operations Center (SEOC) and the Radiological Health Specialist for dose assessment activities.

## **IV. Local Government's Role**

The counties, towns and tribes will implement decisions based on radiological monitoring data provided by the licensee or the MRCP team in accordance with county, town and tribe emergency response plans and procedures.

### **c. Additional Assessment and Monitoring Support**

#### **I. Emergency Management Assistance Compact (EMAC)**

When it is determined that an accident at a nuclear power plant cannot be adequately controlled with resources available to state radiological response personnel, a request will be forwarded by ESF 8 the Radiological Health Specialist for the additional resources needed. The request will contain the following information:

- Description of the problem
- Type of resources needed
- Which state has the resources
- Where the resources need to be delivered
- Clear direction to assembly point or point of delivery
- Estimated time the resources will be needed
- If resources include people, what arrangements have been made for housing, etc.

If the Governor, State Coordinating Officer, or designee concurs with the need for assistance as requested, the State EMAC Coordinator will create a request in the EMAC Emergency Operating System and broadcast the request to other States that may have that resource.

## II. National Response Framework

The provisions of the National Response Framework (NRF) will be used for federal interagency coordination for radiological emergency response. Under the NRF, the Department of Energy coordinates federal offsite radiological environmental monitoring and assessment activities as the lead technical organization in the Federal Radiological Monitoring and Assessment Center, regardless of which Federal coordinating agency is designated. The Federal Radiological Monitoring and Assessment Center will be established at or near the incident location in coordination with the Department of Homeland Security, the coordinating agency, other federal agencies, and state and local authorities.

The Department of Energy's Region 1 office at the Brookhaven National Laboratory maintains a Radiological Assistance Program. A Radiological Assistance Program response is tailored based on the scale of the event and if additional Radiological Assistance Program teams and resources can be deployed as necessary.

Activation of these assets will occur when the Department of Energy has been notified that a radiological emergency has occurred, and that federal assistance has been requested. These requests may be made by the Radiological Health Specialist or the State Coordinating Officer via phone. The following personnel and equipment resources are available and will be provided on request:

- Radiological monitoring and environmental specialists with supporting equipment
- Aerial radiological monitoring equipment
- Fixed and mobile laboratory support
- Remote handling equipment
- Technical assistance in predicting the dispersion of radioactivity into the environment
- Medical consultation on the treatment of injuries complicated by radioactive contamination
- Technical support for emergency public information

Federal Radiological Monitoring and Assessment Center and Radiological Assistance Program teams will work to ensure the coordination between State, local and federal agencies is working by integrating into each area.

## III. New England Radiological Health Compact Plan

The New England Radiological Health Compact Plan provides mutual aid in responding to radiation accidents upon request. The plan describes the monitoring and assessment capabilities of each participating state. The following states have signed into agreement with the plan: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

### 3.9 Protective Response

The purpose of this section is to establish the range of protective actions that are available to state and local governments for the protection of the public in the plume exposure and Ingestion Pathway Zones (IPZ) in the event of an accidental release of radioactive material from a nuclear power plant.

## a. Protective Measures

### I. Plume Exposure Pathway

The primary risk for the Plume Exposure Pathway may include external whole body or internal inhalation exposure from the passing radioactive plume. Protective actions to reduce the general public's risk of exposure include evacuation or shelter in place. Potassium Iodide and other protection measures given by healthcare providers may be used to reduce the risk from the thyroid's absorption of radioactive iodine. Each of these protective actions is addressed in greater detail in each respective site plan.

### II. Ingestion Pathway Zone

The primary risk for the ingestion pathway is from the ingestion of contaminated water or foods. The Radiation Control Program (MRCP) has adopted protective action guides that are consistent with federal guidance provided by the Food and Drug Administration. Lists and maps for monitoring and assessment data, land use data, dairies, food processing plants, watersheds, water supply intake, treatment plants and reservoirs will be provided to the risk and ingestion in the IPZ. The Maine Emergency Management Agency (MEMA) will coordinate with the appropriate state and local agencies to ensure that the Agency has best data available.

## b. Concept of Operations

Offsite response to a radiological incident at a nuclear power plant is divided into three phases: the early emergency response phase, the intermediate phase, and the recovery phase.

### I. Early Emergency Phase (Plume)

#### i. Emergency Plans

- The State of Maine Radiological Emergency Plan (REP) outlines State agencies that have a lead or support role during a declared emergency. These roles are shared by many State agencies: The Department of Health and Human Services (ME DHHS) is the lead State agency for exposure pathway responses. MEMA is responsible for overall state coordination of non-technical radiological resources under this Annex.
- Other State agencies may also be involved in implementing protective actions to reduce the public's risk of exposure.
- Federal agencies may provide aid as outlined in the National Response Framework Nuclear/Radiological Incident Annex.  
([https://www.fema.gov/sites/default/files/2020-07/fema\\_incident-annex\\_nuclear-radiological.pdf](https://www.fema.gov/sites/default/files/2020-07/fema_incident-annex_nuclear-radiological.pdf))

#### ii. Field Monitoring

- The Radiation Control Program (MRCP) Radiological Health Specialist at the State Emergency Operations Center (SEOC) will be responsible for the coordination and implementation of all field monitoring and sampling activities.
- Decisions as to where sampling will occur will be made jointly involving staff from the Department of Health and Human Services, the Maine Department of Agriculture, Conservation and Forestry, and the Maine Department of Environmental Protection.

- Once the Federal Radiological Monitoring and Assessment Center is operational, the MRCP will dispatch a representative along with the field teams to the center. State and federal monitoring teams will be integrated and analytical data from field sampling and monitoring will be sent to the emergency operations facility or other field emergency operations centers as the situation warrants.
- State and local staff rosters are maintained by each respective agency.

### iii. Protective Actions

- To protect the public from exposure to or inhalation of radioactive materials, protective actions will be developed and implemented according to the protective action decision process. These protective action decisions are then implemented through County, Town and tribal emergency response agencies and public alert and notification systems.
- Early phase protective action recommendations are generally based on conditions at the plant and projected (calculated) doses. Field measurements (i.e., the analysis of field air samples and beta/gamma measurements) within the emergency planning zone are compared with calculated doses to verify plume location and plant conditions and to confirm the presence or absence of particulates and gases. See **Appendix D. Recommended Protective Action Guidance for Early Phase of an Incident.**

## II. Intermediate Phase

The intermediate phase begins when the nuclear power plant situation has stabilized, there is no further radioactive release offsite, and reliable environmental measurements are available for use as a basis for decisions on additional protective actions, especially those involving ingestion. The intermediate phase extends until these additional protective actions are terminated. This phase may overlap the early and late phases and may last from weeks to many months depending on the incident.

- Any precautionary ingestion protective actions implemented during the early phase will still be in effect at the beginning of the intermediate phase. Additional responsibilities include but are not limited to:
  - i. Citizen decontamination, registration, and evacuee monitoring points shall be established in the affected towns in accordance with procedures spelled out in the site plans.
  - ii. Environmental sampling within the 50-mile Ingestion Pathway Zone (IPZ) will be directed by staff at the Federal Radiological Monitoring and Assessment Center to define the limits of the area of radiological deposition and the levels of radioactive contamination in agricultural and dairy products, and water sources. Additional information about sampling procedures and priorities are available in the MRCP's standard operating procedures. The MRCP, the Department of Agriculture, Conservation and Forestry, and the United States Department of Energy will assist.
  - iii. MEMA compiles data in reference to the location of major food producers, processors, distributors, dairies, and surface water systems within the ingestion pathway zone. The Department of Agriculture, Conservation and Forestry in conjunction with the MRCP, is responsible for the development

of procedures for utilizing this information to keep affected food producers, processors, and distributors informed about protective actions and required post- incident response actions.

- iv. Maps for recording information on the status of the emergency and for monitoring key land use and other ingestion-related data will be developed and maintained by the respective county emergency management agency.
- v. Initiating or continuing the investigation of long-term agricultural land management practices (e.g., soil removal, crop rotation, tillage, etc.) which reduce future contamination of feed and food crops.

#### **i. Re-Entry**

- Re-entry operations will be coordinated from the emergency operations facility by the State Coordinating Officer or designee.
- Limited non-emergency worker entries into access-controlled areas (restricted zones) will be permitted for the performance of emergency services, and to provide food and water to livestock within the area.
- Decisions to relax protective measures and allow recovery and re- entry into an evacuated area require a continuous assessment of the radiological situation. The assessment is accomplished by the analysis of radiological monitoring data from air samples, milk, water, and direct radiation measurements. The MRCP will determine the feasibility of re-entry into evacuated areas and recommend the appropriate actions to the State Coordinating Officer or designee.
- Access control points will be established and enforced by the counties and the Maine State Police or the Department of Transportation as appropriate. They will be used to control all movement into or within a restricted zone. Normally, they will be established in uncontaminated areas.
- Agriculture control points will be established by the Department of Agriculture, Conservation and Forestry and co-located with the access control points. They will be used to restrict the flow of all food stuff and commercial products from a restricted zone. Food control staff will perform direct radiation surveys of all items leaving the restricted zone to ensure all non-consumable items (personnel, pets, household items, etc.) leaving the restricted zone meets the acceptable contamination limits.
- Individuals that require access to the access-controlled area will be issued personal dosimetry (direct reading and dosimeter badges) at the appropriate county emergency operations center prior to entry. They must be given a brief explanation of the hazards within the area and, if practical, escorted within the area by an emergency worker provided by the Department of Health and Human Services. This will be based off EPA dose recommendations.
- Actions to protect the public from the ingestion of radioactively contaminated food or water (e.g., embargo and/or disposal of contaminated food or animals, shut down of surface water intakes for public water supply systems, curtailment of hunting or fishing) will be determined and recommended by the MRCP. Actions will then be reviewed by appropriate state and county representatives before presentation to the State Coordinating Officer or designee for final approval.



### III. Late Phase (Recovery Phase)

The recovery phase begins when recovery actions designed to reduce radiation levels in the environment to acceptable levels for unrestricted use, are commenced and ends when all recovery actions have been completed. This period may extend from months to years depending on measurements. Some restricted zones may remain because of long-term or permanently uncorrectable contamination levels that pose a hazard to public health. Humanitarian relief, short-term recovery efforts, and long-term recovery efforts will be conducted in accordance with the Radiological Emergency Preparedness.

#### i. Radiological Assessment

- The investigation of long-term agricultural land management practices (e.g., soil removal, crop rotation, tillage, etc.) that reduce future contamination of feed and food crops will be continued during this phase.
- The identification of long-term impacts on indigenous and migratory wildlife.
- The determination of human doses due to ingestion, living on contaminated land, etc.

#### ii. Decontamination

- A Decontamination and Restoration Plan will be established with coordination from affected counties, the MRCP, the Department of Agriculture and Consumer Services, and federal response resources. The Decontamination and Restoration Plan will address citizen decontamination points, decontamination of buildings and structures, decontamination of agricultural properties, and disposal of contaminated materials.
- The decontamination and restoration of buildings and structures will be conducted with priority given to essential basic services (i.e., general government, fire, law enforcement, utilities, etc.)
- Evaluation of decontamination activities will be conducted by the Department of Health and Human Services with assistance from federal response agencies.

#### iii. Return

- Relaxation of protective action decisions will be recommended jointly by county, state, tribes, and federal agencies and authorized by the State Coordinating Officer.
- Human services assistance and financial assistance for individuals and businesses will be conducted in accordance with American Nuclear Insurance (ANI).

#### iv. Relocation

- Recommendations for restricted zones will be jointly developed by county, state, and federal agencies, and authorized by the State Coordinating Officer.
- Human services assistance and financial assistance for individuals and businesses will be conducted in accordance with ANI.

### IV. Protective Action Guides

- The decision to implement protective actions will be based on the comparison of numerous accident parameters (e.g., release duration and magnitude and weather conditions, etc.) to established protective action guides. Protective action guides for

decision-making during the early phase, intermediate phase, and for ingestion of contaminated agricultural products are identified on pages 51-53.

- In coordination with the licensee, counties and federal agencies present, the MRCP Radiological Health Specialist located at the State EOC will recommend protective actions to the impacted counties and the State Coordinating Officer or designee based on dose projections to the public. The State Coordinating Officer or designee and the impacted counties will then make and implement joint protective action decisions.
- In circumstances where there is an immediate release of radioactive material, the State Emergency Response Team Incident Commander present in the State Emergency Operations Center, or the senior government official in the county EOC, can implement protective action decisions. Prior to the time when the Department of Health and Human Services Operations Officer arrives at the State EOC, the licensee will be responsible for making protective action recommendations directly to the counties and advising the State Emergency Operation Center.

See **Appendix E. Protective Action Guides for Exposure to Deposited Radioactivity During the Intermediate Phase of a Nuclear Incident** and **Appendix F. Protective Action Guides for Ingestion of Contaminated Foods.**

## V. Evacuation

- Evacuation of the general public normally will be initiated if doses greater than or equal to 1 rem whole body or 5 roentgen equivalent man (rem) to the thyroid are projected. The public is required to be evacuated if doses greater than or equal to 5 rem or above to the whole body, or 25 rem or above to the thyroid are projected.
- Evacuation is the primary protective action for the general public, unless there are circumstances where the evacuation would involve a greater risk than the radiation exposure.
- Maps showing evacuation routes, evacuation areas, pre-selected monitoring and sampling points, reception centers, shelters in designated host areas, and population distribution around each facility are included in each respective state, local and county site plan. Each site plan includes means for the notification, protection, and relocation of all segments of the resident and transient population including mobility-impaired persons. Each site plan also includes evacuation time estimates. Each county will use the existing day-to-day means for dealing with potential impediments to evacuation and means for controlling access to evacuation areas.
- The affected power plant will order the evacuation of non-essential personnel from the site upon declaration of a Site Area Emergency or higher, however, this evacuation may occur at lesser emergency levels.

## VI. In-Place Sheltering

In-place sheltering of the general public can be recommended if projected doses are not anticipated to exceed 5 rem whole body or 25 rem to the thyroid. In-place sheltering may be used for short term releases or if their impediments to evacuations that pose a greater risk of exposure. In-place sheltering also enables a population to be positioned so that communications can be carried out in a timely manner.

## VII. Potassium Iodide (KI)

Potassium Iodide or other controlled measures can be used in those situations where evacuation is not an acceptable protective action for populations that are difficult to move, such as prison inmates, hospital and nursing home patients, or others with impaired mobility.

### 3.10 Radiological Exposure Control

This section establishes the means and responsibilities for controlling radiological exposures to emergency workers involved in an emergency response. Emergency response organizations will limit exposure to emergency workers by limiting the amount of time spent in radiation areas, limiting entry into radiation areas to the maximum extent possible, using protective clothing, respirators or decontamination when necessary, using dosimetry and radiation monitors to track worker's exposures and authorizing the use of potassium iodide to emergency workers when directed by the Radiation Control Program (MRCP) as per MRCP standard operating procedures.

#### a. Exposure Monitoring

##### i. Emergency Worker Dosimetry

Radiological Incident Assist Team (RIAT) members responding to a radiological/nuclear incident/accident will be issued radiation monitoring devices. These devices are commonly referred to as dosimeters and will include a personal alarm dosimeter (PAD) and a thermoluminescent dosimeter (TLD). Potassium Iodide tablets may also be issued as part of the personal dosimetry package at the discretion of the Radiation Health Specialist (RHS).

Field Team Coordinators (FTC) will ensure that RIAT members assigned to Field Monitoring Teams (FMT), Incident Command Centers or other assignments where radiation exposure is possible are issued dosimetry and will monitor their exposure while they are in the field. The FTC will work to keep the Total Effective Dose Equivalent (TEDE) below the administrative exposure limit of 1 rem.

FMT members must monitor their exposure in the field by proper use of the PADs. They will periodically report the readings to the FTC.

The Radiation Control Program (MRCP) is responsible for controlling exposure to all personnel and will work with supervisors to ensure worker exposure is properly controlled and recorded. The Radiation Control Program maintains a contract with a dosimetry company that is certified by the National Voluntary Laboratory Accreditation Program to provide thermoluminescent dosimeter badges to Radiological Emergency Response Team personnel (RERT). RERT members will be provided with a permanently assigned TLD and issued a personal alarm dosimeter (PAD) when assigned to a field monitoring team, incident command center, or other assignment where radiation exposure is possible.

See **Appendix G. Personal Dosimetry Log**

## ii. Dose Records

RIAT will be issued a Personnel Dosimetry Log. While in the field, RIAT members should report accumulated exposures as indicated from the PAD. Exposures to team members will be kept as low as possible. The following guidelines should be followed:

- Unless otherwise directed, team members should check the personal alarming dosimeters (PAD) every 15 to 30 minutes and record the time and exposure on the Individual's Exposure Record Card.
- If an increase noted on the PAD is greater than or equal to 100 mR, the team member should notify the Field Team Coordinator (FTC).
- If a reading on the PAD is greater than or equal to 500 mR, the Radiation Health Specialist (RHS) should be notified. The RHS will require the following information:
  - i. Team member 's location (i.e. traffic control point)
  - ii. Duration that a team member has been at that location
  - iii. Other team members PAD readings collocated with or near the individual.
  - iv. Availability of substitute so that worker could be rotated out of the area.
- If the RHS cannot be reached, the team member's exposure should be limited to no more than 500 mR as indicated by the PAD.
- Field Team members may exceed the above dose limits if required for life saving activity. The FTC should contact the RHS as soon as possible, if such an exposure is required.
- Collection: At the end of each shift all personnel dosimetry devices will be returned to the FTC.
  - i. Personnel Dosimetry Log entry must be completed for each team member.
  - ii. PAD readings which exceed 500 milliRem (mR) should be reported to the RHS.
  - iii. The TLDs will be turned in to the FTC. The TLDs will be kept for reissue to the same individual team member.
  - iv. The PAD can be re-zeroed and reissued after they have been returned. The next entry line on the exposure record should be lined out to indicate a "break" in the exposure history. See **Appendix H. Exposure Record Card**
  - v.

## b. Authorization of Exposure in Excess of Protective Action Guides

The MRCP exposure limit is 500 mR per day and 1000 mR for the duration of the emergency. These doses will be limited to the level specified in **Appendix I. Emergency Worker Dose Limits**.

The Field Team Coordinators, after consultation with the MRCP Radiation Health Specialist, may authorize exposure in excess of 500 mR for life saving or activity to protect public health & safety.

## c. Potassium Iodide (KI)

Potassium Iodide or other controlled measures can be used to saturate the human thyroid gland with stable iodine and thus prevent the absorption of inhaled or ingested radioactive iodine. Potassium Iodide

does not protect other parts of the body against radiation exposure and does not protect the thyroid from external radiation. The greatest percentage of thyroid protection occurs when Potassium Iodide is administered at or about the time of exposure.

#### **i. Authorization for the Use of Potassium Iodide (KI)**

Potassium Iodide (KI) is used to block uptake of radioactive iodine (I-131) by the thyroid gland. Potassium Iodide (KI), in tablet form, is issued as part of the dosimetry kit for the RIAT member in the plume Emergency Planning Zone (EPZ) and for those outside the plume EPZ who may be exposed to contamination. KI will be available for administration to the RIAT member upon order of the Commissioner of the Department of Health and Human Services or his designated representatives. The following criteria will be considered prior to an order for administration of KI:

- Following a known release, or if a release is imminent of radioactive iodine of unknown composition.
- Following a known release or if a release is imminent of radioactive iodine such that an individual could receive a dose to the thyroid of 25 rem.

Dosage will be 130 mg daily for a maximum of 10 days, unless otherwise recommended by the Radiation Health Specialist. **Note: KI should not be used for individuals with known iodine allergies.**

**IF A FMT MEMBER REPORTS ANY SIDE EFFECTS OR REACTIONS FROM KI, INSTRUCT THE INDIVIDUAL TO DISCONTINUE ITS USE AND SEEK MEDICAL ATTENTION, IF NEEDED.**

#### **d. Decontamination**

Action levels for determining the need for decontamination of emergency personnel and/or equipment are shown in **Appendix J. Decontamination Action Guides.**

- Radiation Control Program field team personnel who have been in contaminated or potentially contaminated areas will be monitored at the Civil Support Team Mobile Emergency Radiological Laboratory or at the local or county decontamination center. Contaminated personnel will be processed and decontaminated prior to being relieved from duty.
- All emergency personnel will be monitored at appropriate county monitoring and washdown stations. Personnel who are contaminated will be processed through appropriate county monitoring and washdown stations. Contaminated personnel that have been injured will be treated at medical facilities identified under the Medical and Public Health Support section below.
- All contaminated tools, clothing, equipment, and other material that cannot be decontaminated will be placed in plastic bags, tagged, and placed in suitable containers for later disposition, under the direction of the State Department of Health and Human Services.

### 3.11 Medical and Public Health Support

The State of Maine has six medical facilities located in the IPZ that can treat potentially contaminated, injured and/or exposed individuals. Outside of the IPZ, Maine has four close backup hospitals that can handle and treat exposed individuals. Each hospital has its own plan that lists policies and procedures to handle radiological exposures.

- Primary Hospitals for Seabrook IPZ
  - Southern Maine Health – Sanford (25 June Street, Sanford, ME)
  - Southern Maine Health – Biddeford (1 Medical Center Drive, Biddeford, ME)
  - York Hospital – (1 Loving Kindness Way, York, ME)
- Primary Hospitals for Point Lepreau IPZ
  - Calais Community Hospital – Calais (24 Hospital Lane, Calais, ME)
  - Eastport Healthcare – Eastport (30 Boynton Street, Eastport, ME)
  - Lubec Medical Center – Lubec (43 South Lubec Road, Lubec)
  - St. Croix Regional Family Medical Center – Princeton (136 Mill Street, Princeton, ME)
- Backup Hospitals for Seabrook IPZ
  - Maine Medical Center – (22 Bramhall Street, Portland, ME)
  - Mercy Hospital – (144 State Street, Portland, ME)
- Backup Hospitals for Point Lepreau IPZ
  - Downeast Community Hospital – Machias (11 Hospital Drive, Machias, ME)

Maine Medical Center Regional Emergency Medical Information System (REMIS) is responsible for determining an appropriate hospital/medical facility and the determination process for transportation of individuals to those medical facilities.

Maine has several Basic Life Support (BLS) and Advanced Life Support (ALS) transport agencies located in York County and Washington County that have the capability to transport potentially contaminated, injured, and/or exposed individuals. Each respective agency is equipped with radios and cell phones to be able to communicate with the hospitals. Personnel who are contaminated and/or injured will be processed through appropriate county monitoring and washdown stations before being transported to the hospital. Additionally, York County EMA has a cache of dosimetry they can provide to transportation agencies to assist with monitoring while individuals are enroute to the hospitals.

## Section 4: Exercises and Drills, Radiological Emergency Response Training, and Plan Development and Maintenance

### 4.1 Exercise and Drills

The State of Maine is potentially impacted by two Nuclear Power Plants (NPP). In each case Maine is only in the ingestion pathway zone and is required to have a full participation exercise every eight years for each NPP that impacts Maine.

Part of Maine's annual Integrated Preparedness Planning Workshop (IPPW) upcoming drills and exercises shall be included as part of the overall IPPW agenda and schedule. Periodic drills and exercises serve the purpose to test all major elements of this plan.

#### a. Drills

Periodic drills are conducted to develop and maintain key emergency response skills. These drills shall include:

- Sampling and radioactive analysis of water, vegetation, and soil.
- Testing of communications systems and record keeping with all plan specified agencies and organizations. Communications testing shall also include the understanding of the message content.
- Issuance of emergency worker radiological monitoring equipment and personnel dosimetry.
- Additional drill or exercise scenarios may vary to include hostile action directed at a NPP site, a rapid escalation of an initial event classification, or a minimal release of radioactive material.
- Additionally, periodic health physics drills will be conducted by the Maine Radiological Control Program.
- Issues identified because of these drills are followed up by creating a list of such items and correcting them by procedural changes and/or training.
- A drill is defined as a supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation.

#### b. Exercises

Periodic exercises will be conducted to evaluate major portions of the emergency response capabilities of the state and supporting agencies. There are two types of exercises, full-participation, and partial-participation.

A full-participation exercise is an activity which tests appropriate state authorities and licensee personnel and actively taking part in testing their integrated capability to adequately assess and respond to an accident at a nuclear power plant.

- Full participation includes testing the major portions of the on-site and state emergency plans and mobilization of state, and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario.
- A partial-participation exercise provides state authorities voluntarily taking part in the exercise, sufficient opportunity to test direction and control functions, i.e. (a) protective action decision-

making related to emergency action levels and, (b) communication capabilities between the affected site state and the licensee.

For each exercise, Maine in coordination with the Nuclear Power Plant and affected state or province, will participate in the Extent of Play and exercise scenario development. The scenario will be varied from exercise to exercise to test all the major elements of the plan and preparedness of the State Agencies within an eight-year period. Biennial ingestion pathway drills and reference drills will be held every two years. As an example, exercises will be conducted under various weather conditions. The frequency for full-participation and partial-participation exercises are as follows:

- State of Maine, which are responsible for emergency responses within the 50-mile ingestion exposure pathway EPZ, shall exercise their plans and preparedness related to ingestion exposure pathway measures at least once every 8 years.

The State of Maine and Province of New Brunswick shall also conduct joint exercise. Maine will follow FEMA and Nuclear Regulatory Commission (NRC) guidance and conduct these exercises for the purpose of the 50-mile ingestion exposure pathway Emergency Planning Zone that is within Maine. These exercises shall take place at a minimum of every eight years and more often dependent on the Canadian cycle of exercises.

Remedial exercises may be required if the emergency plan has not been satisfactorily tested, FEMA, in consultation with the NRC cannot find reasonable assurance that adequate protective measures can be taken in the event of a radiological emergency. The extent of state participation in remedial exercises must be sufficient to show that appropriate corrective measures have been taken, regarding the elements of the plan that were not properly tested in the previous exercise.

Personnel from the Nuclear Power Plant, federal, and state agencies will control, observe, evaluate, and critique the required exercise. Maine will coordinate with FEMA to schedule the placement of evaluators during drills and exercises. Evaluators will be provided with an advance copy of the scenario, plans, procedures to be tested, and will be briefed as to the schedule of events and evaluation criteria for each location. Evaluators will be provided with guidelines and evaluation sheets applicable to their locations.

An After-Action Review (AAR) will be conducted at the conclusion of each exercise to evaluate the performance of state and local emergency personnel. This AAR will be conducted as soon as practical after the exercise.

In most cases, FEMA will conduct the AAR. The Regional Assistance Committee Chair will prepare a draft exercise report based on materials developed and collected by the FEMA evaluators during the exercise and input from the post-exercise critique and public meeting. The AAR and evaluation efforts not sponsored by FEMA will be provided to Maine and/or the Nuclear Power Plant.

The MEMA Technological Hazards Unit and the Training and Exercise Program will work collaboratively based on these findings to better improve the plan. The Training and Exercise Program will assign any changes to the plan or additional training to support the plan.



### **c. Evaluating Observer and Participant Comments**

The Training and Exercise Program staff will review evaluator and participant comments on exercises and drills. Where issues are cited, involved agencies will respond to the comments stating concurrence or disagreement with the validity of the issue.

An independent evaluation process between FEMA, the state, and the Nuclear Power Plant will determine the remedial actions required to correct confirmed issues.

The Director of Operations shall ensure that validated issues identified are dispositioned in an appropriate and timely manner.

### **d. Conduct of Exercises**

Exercises will be conducted in accordance with FEMA Radiological Emergency Preparedness Manual (<https://www.fema.gov/media-collection/rep-program-manual>). Exercise objectives, submissions, and review will be in accordance with FEMA REP manual criterion.

All exercises shall also be conducted and documented using Homeland Security Exercise and Evaluation Program (HSEEP) to form a consistent record from design and implementation to AAR and Improvement plan.

## **4.2 Radiological Emergency Response Training**

A training program to support the plan will provide uniform instruction for state agencies and personnel who may be expected to respond to a nuclear incident.

MEMA has the primary responsibility for ensuring that training is offered annually. The Maine Radiological Control Program (MRCP) is responsible for their personnel along with monitoring and the sampling teams. MEMA and MRCP will maintain documentation of personnel attending such trainings.

In the event of emergency situations, arrangements will be made by any personnel needing expedited training.

The objectives of this program:

- Training on the use of the plan, its organization, and systems necessary to affect a response at the state level.
- Training of field team personnel in sample collection, handling, record keeping, and transportation procedures.
- Implementation actions for protection of the public from radiological exposure.
- Training performing dose calculations after the sample analysis has been completed.
- Orientation courses for state personnel who will respond to radiological incidents.
- As a method of training, periodic drills and exercises will be designed to test Ingestion Pathway response procedures and implementation.
- Training programs shall normally be offered on an annual basis. Frequent or specialized training programs will be offered as necessary, to allow for personnel changes and/or drill/exercise identified weaknesses.

The MEMA Director has assigned the Technological Hazards Unit Program Manager the responsibility for the Ingestion Exposure Pathway emergency planning and coordination. In addition, this person shall provide for appropriate training of those individuals responsible for the planning effort.

The following training programs will be offered by MEMA on an annual basis and also upon request:

- Traffic Control Emergency Worker Training
  - Overview of radiation and its effects
  - Use of the DMC 2000/3000 and related equipment
  - Review of the Traffic Control Manual
  - Specific job actions
  - Pre and post assignment paperwork
  
- Radiological Planning for Incident Management Assistance Teams (IMAT)
  - Overview of radiation and its effects
  - Review of the ingestion pathway plan
  - Role of the IMAT in Emergency Operations Center support
  - Review of various Incident Command System forms
  
- Radiological knowledge for EOC personnel
  - Overview of radiation and its effects
  - Review of the ingestion pathway plan
  - Incident Action Plan and sit rep development

The Maine Radiological Control Program will train its employees, support personnel, monitoring and sampling teams on dose calculations, accident assessment, and other trainings that will allow them to perform their duties.

### 4.3 Plan Development and Maintenance

This section establishes the method for development, distribution, control, and revision of the State of Maine Ingestion Planning Zone Plan.

#### a. Responsibilities

- The Maine Emergency Management Agency (MEMA) is responsible for overall coordination of disaster operations.
- The Technological Hazards Unit Program Manager maintains the master copy of this plan and its revisions and distributes the plan to the State of Maine agencies listed below. Additional copies will be distributed to counties that are within a planning zone.
- The following state/county agencies are responsible for maintaining controlled copies of the plan.
  - State of Maine Governor's Office
  - Maine Emergency Management Agency (MEMA)
  - Department of Health and Human Services Radiological Control Program (MEDHHS-MRCP)

- Maine Department of Environmental Protection (MEDEP)
- Dept. of Public Safety Maine Bureau of Emergency Communications (MBEC)
- Maine State Police (MSP)
- Maine National Guard, Adjutant General
- Commanding Officer, 11<sup>th</sup> Civil Support Team (11<sup>th</sup> CST)
- Maine Department of Transportation (ME DOT)
- Maine Department of Marine Resources (ME DMR)
- Maine Department of Agriculture, Conservation and Forestry (ME DACF)
- York County Emergency Management Agency (YKEMA)
- Washington County Emergency Management Agency (WNEMA)
- Washington County and York County Emergency Management directors maintain up-to-date copies of the plans assigned to them. They are responsible for identifying changes in the plan, annually, and provide this information to the Technological Hazards Unit Program Manager by November 1<sup>st</sup> of each year.

## **b. Distribution**

- The Technological Hazards Unit Program Manager (THUPM) shall distribute controlled copies of the plan and revisions. The controlled document distribution list shall be used to record the names of the copy holders. This list shall be maintained on file by MEMA.
- The Technological Hazards Unit Program Manager of MEMA shall maintain accountability of the plan including revisions, utilizing the Notice of Receipt Form. When the forms are signed and returned by the controlled copy holder, the THUPM of MEMA shall record the date signed on the Notice of Receipt Form listed in the plan.
- Each designated holder of a controlled copy of the plan shall follow all of the instructions on the Notice of Receipt Form when they receive it. The Notice of Receipt Form should be signed, dated, and returned to MEMA.
- The THUPM of MEMA shall maintain a master copy of the plan and all future revisions on file.
- Each State Agency, Washington and York County Emergency Management Agency shall use the Document Acknowledgment Sheet to ensure that all staff members are aware of changes to the plan. This form shall remain with the document.

## **c. Revisions**

- In September of every year, the THUPM of MEMA shall initiate the effort for updating the plan, by sending notices to all controlled copy holders.
- In the event that controlled copy holders identify the need for an update to the plan, they shall transmit the revision to the THUPM of MEMA as a proposed update.
- Updated change pages will contain the change date.
- If significant updates are recognized, MEMA will create a revision (i.e., signification change) to the plan. This major revision will be noted by a revision number change.
- All telephone call lists that are part of this plan should be updated quarterly. It is the responsibility of each state/county agency identified in the plan to notify MEMA of any telephone number changes.
- The plan shall be exercised in accordance with FEMA directives.

#### **d. Staff Training**

The MEMA Technological Hazards Unit will be the primary developers and maintain the ingestion pathway plan for Maine. Training will consist of formal education that is available through FEMA and/or private institutions such as Harvard.

At a minimum the following programs will be completed by lead MEMA planners:

- FEMA AWR-317: REP Core Concepts Course
- FEMA IS-235.C: Emergency Planning
- FEMA AWR-923-W: Radiological Emergency Management
- FEMA AWR-351: REP Post-Plume Awareness Course
- FEMA AWR-925-W: Radiological Accident Assessment Course

Additionally, the following course is encouraged for each staff member with planning responsibilities:

- Harvard School of Public Health - Radiological Emergency Planning: Terrorism, Security, and Communication

## Section 5: Authorities and References

### 5.1 Authorities

- State of Maine, General Laws Maine, Title 37B, as amended.
- Title 10, Code of Federal Regulations (CFR), Part 50, Appendix E "Emergency Plans for Production and Utilization Facilities," as revised July 6, 1984.
- NRC Guide and Checklist for the Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities (NUREG 75-111).
- NRC/EPA Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants, NUREG-0396, EPA 520-1-78, and EPA 400-R-92-001, 1991, as amended.
- Federal Civil Defense Act of 1950, Public Law 81-290, as amended.
- This NUREG-0654/FEMA-REP-1, Revision 2 updated December 2019 and reflects changes to both NRC and FEMA regulations, guidance, policies, and doctrine, as well as advances in technology and best practices that have occurred since the document was originally issued in November 1980.
- NRC Bulletin 2005-02, Emergency Preparedness and Response Actions for Security Based Events published July 18, 2005, and any future modifications.

### 5.2 References

- Recovery Federal Interagency Operational Plan, Second Edition, August 2016.
- Chapter 163 New England Compact on Radiological Health and the New England Radiological Assistance Plan, 1967, as amended.
- Federal Response Plan, April 1992, as amended.
- Federal Register, Vol. 67, No. 7, pp.1355-1357, Federal Policy on Use of Potassium Iodide (KI), Federal Emergency Management Agency, January 10, 2002.
- FEMA-REP-2, Guidance on Offsite Emergency Radiation Measurement Systems, Phase 1 – Airborne Release, June 1990.
- Radiological Emergency Preparedness Exercise Manual, FEMA, 2019 as amended.
- Homeland Security Exercise and Evaluation Program (HSEEP), April 2013.
- Radiological Emergency Preparedness Program Manual, 2019, as amended.
- Federal Register, Vol. 63, No. 156, August 13, 1998, pg. 43402, Department of Health and Human Services, Food and Drug Administration: “Recommendations for State and Local Agencies on the Accidental Radioactive Contamination of Human Food and Animal Feeds”, as amended.
- FEMA/Federal Radiological Preparedness Coordinating Committee, Communicating During and After a Nuclear Power Plant Incident, June 2013.
- National Disaster Recovery Framework (NDRF), Second Edition, June 2016.

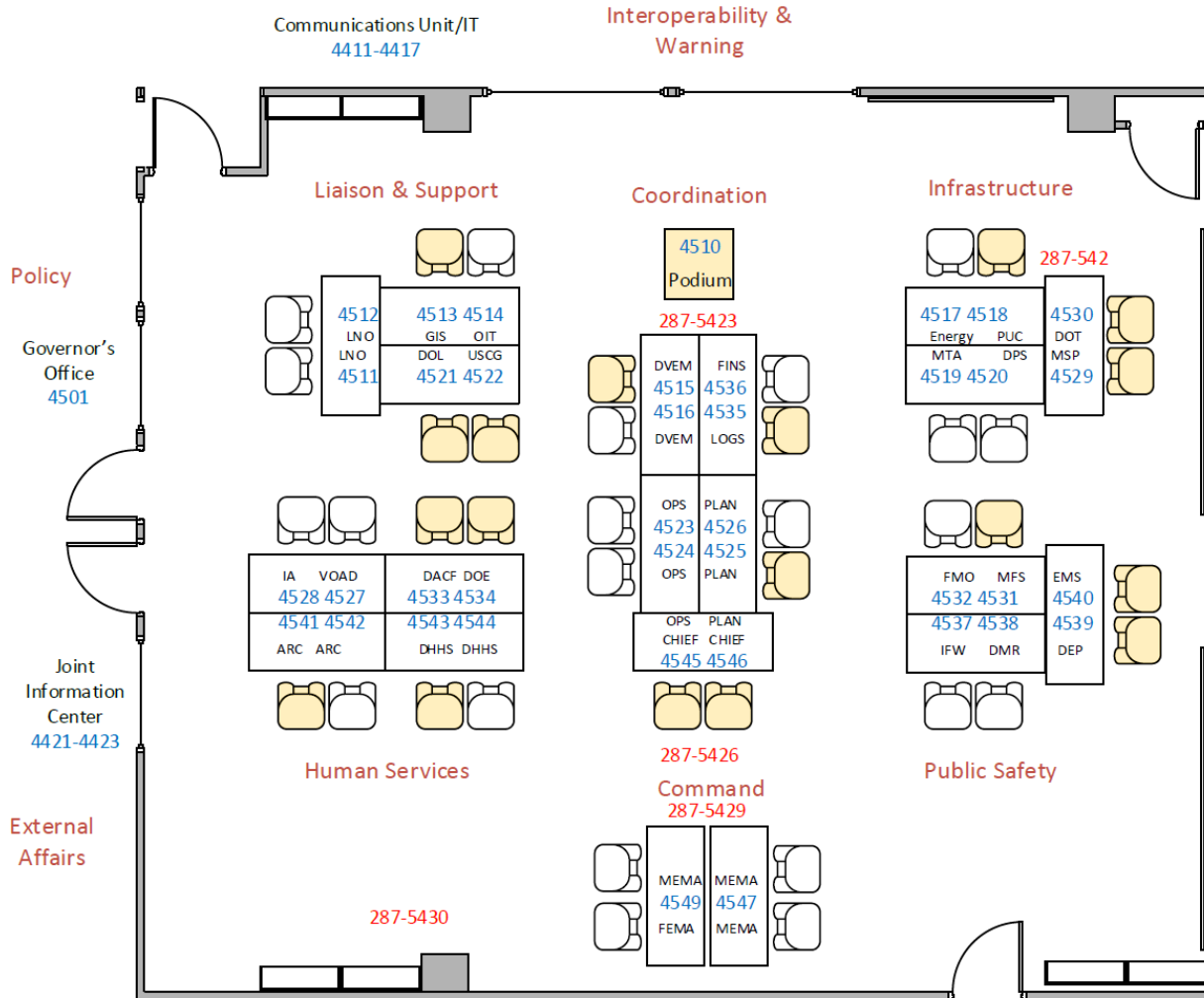
- EPA Manual of Protective Action Guides and Protective Actions for Radiological Incidents, January 2017, as amended. (<https://www.epa.gov/radiation/pag-manuals-and-resources>)
- Information for farmers:
  - State of Maine Emergency Information for Farmers, Food Processors and Distributors (2021)
  - Radiological Emergency Information for Farmers, Food Processors and Distributors, November 1989, USDA, FEMA, as amended.

### **5.3 Supporting Plans/Documents available at MEMA**

- State of Maine Emergency Operations Plan
- State of Maine Emergency Information for Farmers, Food Processors and Distributors (2021)
- Radiation Health Specialist Checklist
- MRCP Procedures 2.01
- New England Radiological Health Compact Plan

# Section 6: Appendices

## Appendix A. Emergency Operations Center Footprint



Highlighted seats represent PC's with projector screen display capability. Red Phone numbers represent available analog lines.

*In order to maintain an organizational response structure that is flexible and scalable, phone numbers for some supporting agencies and liaisons will be assigned upon SEOC activation. Please always refer to the Operations Section Chief for finalized structure.*

## Appendix B. Laboratory Analysis Capability – State of Maine

### LABORATORY ANALYSIS CAPABILITY

#### STATE OF MAINE

221 State Street, Augusta, ME

MEDIUM	ANALYSIS	ANALYSIS TIME (hrs.)	STATE EMER. 8 HR DAY	STATE EMER. 24 HR DAY	NO EMER. 8 HR DAY
MILK OR VEGETATION	GAMMA SPEC	8 HRS* (ROUTINE) 0.5 HRS (EMERGENCY)	32	96	2
WATER OR PRECIPITATION	GROSS ALPHA GROSS BETA	5 HRS** (ROUTINE) 0.5 HRS (EMERGENCY)	16	48	1
WATER OR PRECIPITATION	I-131 (LOW-LEVEL, < 50pCi/l)	16 HRS*	0	2	0
AIR FILTER OR DRY DEPOSITION	GROSS ALPHA GROSS BETA	5 HRS** (ROUTINE) 0.5 HRS (EMERGENCY)	16	48	1

\* Includes sample prep time.

\*\* Counting time only as prep times will vary



**Appendix C. Radiation Evaluation Equipment – State of Maine**

Quantity	TYPE	MANUFACTURER	MODEL #	LAB	FIELD	ALPHA	BETA	GAMMA	NEUTRON
1	Alpha / Beta thin window proportional counter	Tennelec	Series 5 XLB	X		X	X		
3	WINDOWLESS GAS- FLOW PROPORTIONAL	Protean	MPC-200-PC	X		X			
1	LSC (Liquid Scintillation counter)	PACKARD TRICARB	TR1600	X		X	X		
1	HPGE Detector	CANBERRA	GC-S 80%	X				X	
1	24% Ge Detector	CANBERRA	7500 24%	X				X	
1	LSC (Liquid Scintillation Counter)	Perkin-Elmer	4910	X		X	X		
1	MCA- Multi Channel Analyzer	Mirion	Lynx	X				X	
1	MCA- Multi Channel Analyzer	Mirion	Lynx	X				X	

QUANTITY	TYPE	MANUFACTURER	MODEL #	LAB	FIELD	ALPHA	BETA	GAMMA	X-RAY	NEUTRON
3	NaI	LUDLUM	19		X			X		
4	GM, NaI	LUDLUM	14C		X	X	X	X		
1	ZnS, GM	LUDLUM	12		X	X				
4	NaI	LUDLUM	3		X			X		
2	ION CHAMBER	LUDLUM	9		X		X	X		
1	ION CHAMBER	LUDLUM	9DP-1		X		X	X		
6	NaI, ZnS	LUDLUM	2241 SCALER		X	X ZnS		X		
1	GM, BF3	LUDLUM	15		X		X	X		X BF3
2	GM	DOSIMETER	ISO RAD60		X			X		
3	HIGH VOLUME AIR SAMPLER	RADECO			X					
4	Dosimeter	Arrowtech	W725 0-5R		X			X		
3	Dosimeter	Arrowtech	W715 0-1000mR		X			X		
3	Dosimeter	Arrowtech	0-200mR		X			X		
2	NaI	LUDLUM	78		X		X	X		
10	Dosimeter	MGP	DMC2000S					X		
2	NaI(Tl)	Thermo Scientific	SPRD-GN					X Spectroscopy		
2	NaI	EXPLORANUIM	GR-135					X Spectroscopy		

## Appendix D. Recommended Protective Action Guidance for Early Phase of an Incident<sup>a</sup>

Protective Action Recommendation	PAG	Comments
Sheltering-in-place or evacuation of the public <sup>b</sup>	<b>PAG:</b> 1 to 5 rem (10 to 50 mSv) projected dose over four days <sup>c</sup>	Evacuation (or, for some situations, sheltering-in-place) should be initiated when projected dose is 1 rem (10 mSv)
Supplementary administration of prophylactic drugs – KI <sup>d</sup>	<b>PAG:</b> 5 rem (50 mSv) projected child dose <sup>e</sup> from exposure to radioactive iodine	KI is most effective if taken prior to exposure.

- a. This guidance does not address or impact site cleanups occurring under other statutory authorities such as the United States Environmental Protection Agency’s (EPA) Superfund program, the Nuclear Regulatory Commission’s (NRC) decommissioning program, or other federal or state cleanup programs.
- b. Should begin at 1 rem (10 mSv) if advantageous except when practical or safety considerations warrant using 5 rem (50 mSv); take whichever action (or combination of actions) that results in the lowest exposure for the majority of the population. Sheltering may begin at lower levels if advantageous.
- c. Projected dose is the sum of the effective dose from external radiation exposure (e.g., ground shine and plume submersion) and the committed effective dose from inhaled radioactive material.
- d. Provides thyroid protection from radioactive iodine’s only. See the complete 2001 FDA guidance, “[Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies](#)” (FDA 2001). Further information is also available in “[KI in Radiation Emergencies – Questions and Answers](#)” (FDA 2002), and “[Frequently Asked Questions on Potassium Iodide \(KI\)](#).” For information on radiological prophylactics and treatment other than KI, refer to <http://www.fda.gov/Drugs/EmergencyPreparedness/BioterrorismandDrugPreparedness/ucm063807.htm>, <https://www.emergency.cdc.gov/radiation>, and [www.orau.gov/reacts](http://www.orau.gov/reacts).
- e. Thyroid dose. See Section 1.4.2. The one-year old age group is expected to receive the largest dose to the thyroid from exposure to radioactive iodine. Therefore, it is recommended that the one-year old age group is considered when considering the administration of prophylactic KI.

## Appendix E. Protective Action Guides for Exposure to Deposited Radioactivity During the Intermediate Phase of a Nuclear Incident<sup>a</sup>

Projected dose in rem <sup>b</sup>	Protective Action	Comments
greater than or equal to 2 greater than or equal to 0.5 in the second or subsequent years	Relocate the general population. <sup>c</sup>	Beta dose to skin may be up to 50 times higher.
less than 2	Apply simple dose reduction techniques <sup>d</sup>	These protective actions should be taken to reduce doses to as low as practicable levels.

- a. Environmental Protection Agency Manual of Protective Action Guides and Protective Actions for Radiological Incidents, January 2017, page 40. <https://www.epa.gov/radiation/pag-manuals-and-resources>
- b. The projected sum of effective dose equivalent from external gamma radiation and committed effective dose equivalent from inhalation of re-suspended materials, from exposure or intake during the first year. Projected dose refers to the dose that would be received in the absence of shielding from structures or the application of dose reduction techniques. These Protective Action Guides may not provide adequate protection from some long-lived radionuclides, therefore, doses in any single year after the first cannot exceed 0.5 rem and the cumulative dose over 50 years including the first and second years cannot exceed 5 rem.
- c. Persons previously evacuated from areas outside the relocation zone defined by this Protective Action Guide may return to occupy their residences. Cases involving relocation of persons at high risk from such action such as hospital patients under intensive care should be evaluated individually.
- d. Simple dose reduction techniques include scrubbing and/or flushing hard surfaces, soaking, or plowing soil, minor removal of soil from spots where radioactive materials may have concentrated, and spending more time than usual indoors or in other low exposure rate areas.

## Appendix F. Protective Action Guides for Ingestion of Contaminated Foods<sup>a</sup>

Type of Dose <sup>b</sup>	Organ of Interest	Projected Dose
Committed effective dose equivalent	Whole Body	5 mSV / 0.5 rem
Committed dose equivalent	Individual tissue or organ	50 mSV / 5 rem

- a. Federal Register, Vol. 63, No. 156, pp.43402-43403, Guidance on Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies; Availability, Food and Drug Administration, August 13, 1998.
- b. Whichever is more limiting





## Appendix I. Emergency Worker Dose Limits

### EMERGENCY WORKER DOSE LIMITS

Dose Limit	Application	Condition
500 mREM TEDE (a)	ALARA Limit	Applies to all workers
500 mR/hr	Exposure rate Turnback Dose Rate	Applies primarily to field teams Gamma exposure rate measurement
1 REM TEDE	Total Exposure Turnback Dose Value	Applies to all workers
>1 REM TEDE	Lifesaving or activity to protect public health & safety	FTC direction and RHS notification Active monitoring if possible

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a. Total effective dose equivalent during an emergency situation.



## Appendix J. Decontamination Action Guides

### DECONTAMINATION ACTION GUIDES

#### HIGH RADIATION AREAS<sup>a</sup> 0.1 to 5.0 mR/hr gamma exposure rates)

<u>When Measured</u>	<u>Closed Window</u>	<u>Recommended Actions</u>
Before Decontamination	less than 2 x background and less than 0.5 mR/h above background	Unconditional release
	greater than 2 x background or greater 0.5 mR/h above background	Decontaminate (equipment held for decay/disposal)
After Decontamination	less than 2 x background and less than 0.5 mR/h above background	Unconditional release (may leave monitoring/ decon station)
	greater than 2 x background or greater than 0.5 mR/h above background	Continue decon or send to low background decon station (equipment as above)

#### LOW RADIATION AREAS (less than 0.1 mR/hr gamma exposure rates)

<u>When Measured</u>	<u>Open Window</u>	<u>Recommended Actions</u>
Before decontamination	less than 2 x background	Unconditional release
	greater than 2 x background	Simple decontamination
After simple decon (e.g. flushing with water and/ or wiping)	less than 2 x background	Unconditional release
	greater than 2 x background	Full decontamination
After full decon (e.g. washing or scrubbing with soap or solvent followed by flushing with water)	less than 2 x background	Unconditional release
	greater than 2 x background less than 0.5 mR/hr <sup>b</sup>	People continue full decon. Release animals/equipment
After additional full decontamination effort	less than 2 x background	Unconditional release
	greater than 2 x background less than 0.5 mR/hr <sup>b</sup> greater than 0.5 mR/hr <sup>b</sup>	Send people to special care Release animals/equipment Use informed judgement to control animals/equipment

- a. Only done in early phase of large particulate release accidents otherwise set up in low background area.
- b. Closed window measurements.

**Health Effects Associated with Whole-Body Doses Received within a Few Hours<sup>a</sup>**

Whole Body Dose (rad)	Early Fatalities <sup>b</sup> (percent)	Whole Body Dose (rad)	Prodromal Effect <sup>c</sup> (percent affect)
140	5	50	2
200	15	100	15
300	50	150	50
400	85	200	85
460	95	250	98

- a. Risks will be lower for protracted exposure periods.
- b. Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.
- c. Forewarning symptoms of more serious health effects associated with large doses of radiation

**Approximate Cancer Risk to Average Individuals from 25 rem Effective Dose Equivalent Delivered Promptly**

Age at exposure	Appropriate risk of premature death (deaths per 1,000 persons exposed)	Average years of life lost if premature death occurs
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

# Appendix K. State of Maine Ingestion Exposure Pathway Plan – Controlled Document Notice of Receipt Form

## State of Maine Ingestion Exposure Pathway Plan Maine Emergency Management Agency Controlled Document Notice of Receipt Form

Document: Maine Emergency Response Plan for the Ingestion Exposure Pathway

Document Holder: \_\_\_\_\_

Document Holder Address: \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

Control Copy Number: \_\_\_\_\_

Revision Number: \_\_\_\_\_

Change Number: \_\_\_\_\_

Authorization for Issue: Director, Maine Emergency Management Agency

Please insert and/or remove pages as indicated on the attached Revision Instruction Notice and destroy all superseded and outdated pages.

Please sign and return this form within 14 days.

This acknowledges receipt of the revisions listed on the attached Revision Instruction Notice. All superseded pages have been removed and destroyed and affected personnel have been notified.

Signature \_\_\_\_\_ Date \_\_\_\_\_

When above instructions have been completed, please return the ENTIRE sheet to:

Technological Hazards Unit – Program Manager  
Maine Emergency Management Agency  
72 State House Station  
Augusta, Maine 04333-0072

# Appendix L. State of Maine Ingestion Exposure Pathway Plan – Document Acknowledgment Sheet

## State of Maine Ingestion Exposure Pathway Plan Maine Emergency Management Agency

### Document Acknowledgment Sheet

The following document(s) has been revised and issued as new. Please read the document(s) prior to affixing your initials on the line provided.

Department: \_\_\_\_\_

Document Title: \_\_\_\_\_

Revision No.: \_\_\_\_\_

Document No.: \_\_\_\_\_

Revision Date: \_\_\_\_\_

I have read and am aware of the requirements or similar of the above listed document(s).

Required Personnel

Initials

Date

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# Appendix M. State of Maine Ingestion Exposure Pathway Plan – Revision Instruction Notice

## State of Maine Ingestion Exposure Pathway Plan Maine Emergency Management Agency

### Revision Instruction Notice

Please update your controlled copy of the **Maine Emergency Response Plan for the Ingestion Pathway Plan** as instructed below

#### REMOVE AND DISCARD

#### INSERT

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Please insert and/or remove pages as indicated and destroy all superseded and outdated pages