

RADIOLOGICAL EMERGENCY INGESTION EXPOSURE PATHWAY PLAN

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INTRODUCTION

In the event of a radiological release in or near Rhode Island, the Rhode Island Emergency Management Administration (RI EMA) is the state's lead response agency. The two most comprehensive and relevant plans for state response are:

- *State of Rhode Island Ingestion Exposure Pathway Plan*, (2001); and
- "Annex A: Radiological Protection" in the *State Emergency Operations Plan* (SEOP, 2004).

According to these plans, upon proper notification by RI EMA, The Rhode Island Department of Environmental Management (DEM) provides support. In particular, the DEM cooperates with RI EMA and other response agencies in helping to determine if radioactive contamination is present in the food chain prior to wholesale or retail distribution.

DEM RESPONSIBILITIES

- Upon activation of the State Emergency Operations Center (EOC), DEM provides necessary personnel and technical support to HEALTH for environmental sample collection activities.
- DEM consults with the appropriate HEALTH authorities to determine field sample results in affected site state communities.
- The DEM Division of Agriculture (DAG) maintains in the EOC a list of farms, including dairy, poultry, cattle, and vegetable, as well as shell fishing and public hunting areas, orchards, vineyards, and apiaries.
- The DEM Division of Law Enforcement enforces appropriate restrictions on activities in public hunting and recreational fishing areas.
- DEM coordinates with RI EMA to determine appropriate sample types and locations.
- DEM coordinates with RI EMA and HEALTH to provide personnel for sampling teams from appropriate divisions.
- DEM coordinates with HEALTH and the Field Sample Team Coordinator to assist the deployment and field operations of sample teams.

CHECKLIST OF ACTIVITIES FOR THE DIRECTOR OF DEM OR HIS/HER DESIGNEE

1. Upon arrival in the EOC, review assigned procedures.
2. Maintain a staff journal.
3. Provide DEM personnel to staff the EOC and at least two field sample teams.
4. Assist HEALTH in developing a sampling strategy for the selection of appropriate sample types and locations, considering the following priorities:
 - Areas of suspected contamination.
 - Available crops, given the time of year.
See: DEM DAG, [Directory of Rhode Island Farms](http://www.dem.ri.gov/programs/bnatres/agricult/farms99.htm) <<http://www.dem.ri.gov/programs/bnatres/agricult/farms99.htm>>; Farm Fresh Rhode Island, [Farms A-Z in Rhode Island](http://www.farmfreshri.org/find/farms.php) <<http://www.farmfreshri.org/find/farms.php>>; and DEM DAG, [Harvest Chart](http://www.dem.ri.gov/programs/bnatres/agricult/pdf/harvchrt.pdf) <<http://www.dem.ri.gov/programs/bnatres/agricult/pdf/harvchrt.pdf>>.
 - Areas where the largest quantities of food are located, such as bulk producers or processors.
See: DEM DAG, [Agricultural Export and Food Processing Companies](http://www.dem.ri.gov/programs/bnatres/agricult/foodco.htm) <<http://www.dem.ri.gov/programs/bnatres/agricult/foodco.htm>>
 - Foods that have short producer-to-consumer times, such as U-pick fruit and vegetable farms.
See: DEM DAG, [RI Farms, Products, and Information](http://www.dem.ri.gov/topics/agricult.htm) <<http://www.dem.ri.gov/topics/agricult.htm>>
 - Foods that are produced or processed in such a way that little or no reduction in surface contamination could reasonably be expected from washing, milling, shelling, peeling, etc.
 - Foods that have short-term storage at either the producer or processor levels.
5. Ensure that the Division of Water Resources utilizes the appropriate Ingestion Exposure Pathway zone map (Refer to the Grid Map Book) and performs the following:
 - Determines the overall areas from which water samples need to be collected.
 - Determines specific water sampling locations.
 - Completes the “Emergency Operations Center Record of Requested Samples” (Figure C-1 in the *Ingestion Exposure Pathway Plan*).
6. Ensure that the Division of Agriculture utilizes the appropriate Ingestion Exposure Pathway zone map and performs the following:
 - Determines the overall areas from which agricultural samples need to be collected.
 - Refers to the “Rhode Island Grown Seasonal Availability Chart” and “Seasonal Availability for Sampling” (Figures C-2 and C-3 in the *Ingestion Exposure Pathway Plan*) and determines appropriate agricultural product sample types and location.

7. Ensure that the Division of Law Enforcement monitors recreational fishing and public hunting areas and enforces a ban, as necessary.
8. Ensure that the DEM representative in the EOC refers to the “Emergency Operation Center Record of Requested Samples” (Figure C-1 in the *Ingestion Exposure Pathway Plan*) and performs the following:
 - Assists in the completion of the first two columns (Type of Sample, Locations by Area).
 - Routes a copy to the Director of HEALTH for overall prioritization of field sampling.
9. Ensure that DEM resources are available to staff the Field Sampling Teams.
10. Assist the Director of Health in performing the following
 - Setting priorities for field sampling and laboratory analysis of field samples.
 - Evaluating the results of sampled areas on the appropriate maps.
 - Formulating protective action recommendations.
 - Preparing embargo orders.
Note: Food products under the purview of DEM will be placed under embargo utilizing HEALTH form PPS 569-4 and the Food Protection and Sanitation Seal used by HEALTH. See Appendix C of the *Ingestion Exposure Pathway Plan* for an example of the form and seal. This procedure will ensure consistency of documentation for embargo orders issued during and emergency.
11. Assist the Governor’s Director of Communications in preparing media releases and conducting media conferences in order to implement protective actions.

SOURCES:

RI EMA, *State of Rhode Island Ingestion Exposure Pathway Plan*, especially Appendices C, D, and H (2001).

RI EMA, “Annex A: Radiological Protection” in the *State Emergency Operations Plan* (SEOP, 2004).

USDA, APHIS, National Animal Health Emergency Management System (NAHEMS), 2005 Draft [Radiological Emergency Guidelines](#). (The latest revised version is on-line via registration at <<http://emrs.aphis.usda.gov/nahems.html>>)