

# NEW YORK STATE RADIOLOGIC EMERGENCY PREPAREDNESS FOR THE AGRICULTURE COMMUNITY

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2023

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Keep this Booklet for Future Reference.

This booklet is updated in partnership with:

New York State Disaster Preparedness Commission





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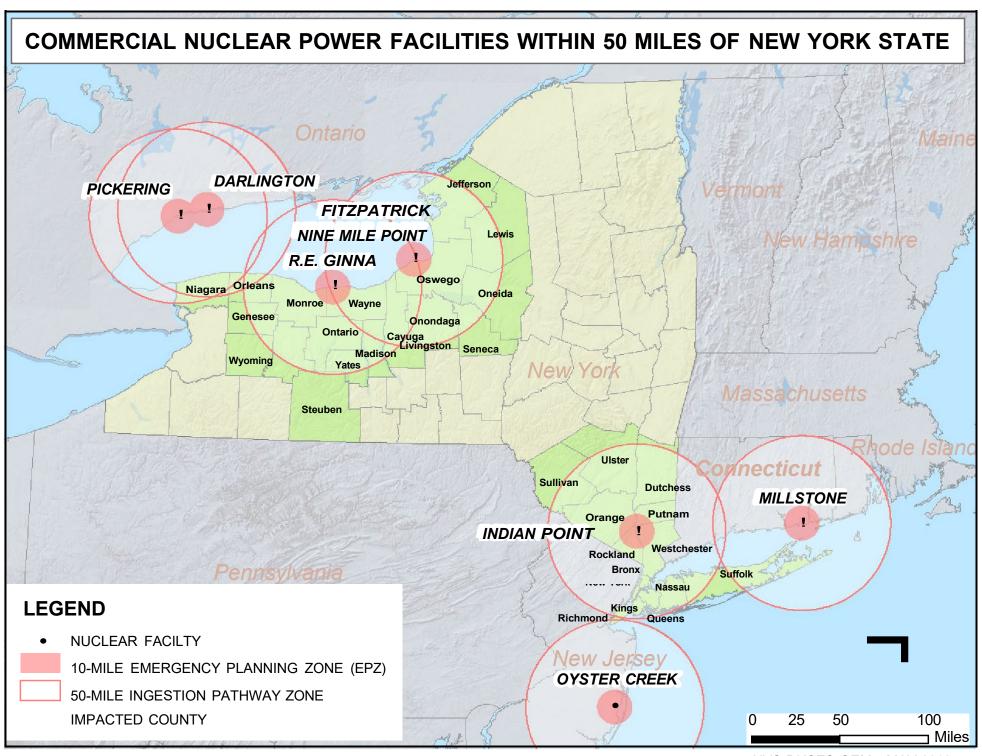
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# **Ingestion Pathway Planning Counties**

| Nine Mile Point       |  |
|-----------------------|--|
|                       | Robert E. Ginna  |
|                       | Location: Wayne County   |
| -                     | Planning Area: 12 counties   |
| _                     | Population: 1,862,264  |
| 1 -                   | (2010 Census)  |
| (2010 Gerisus)        |  |
| . Cayuga              | · Cayuga   |
| , ,                   | · Genesee  |
|                       | · Livingston   |
|                       | · Monroe   |
|                       | · Onondaga   |
|                       | · Ontario  |
| _                     | · Orleans  |
|                       | · Oswego   |
|                       | · Seneca   |
|                       | · Wayne  |
| · Wayne               | · Wyoming  |
|                       | · Yates  |
|                       | · rates  |
|                       |  |
|                       |  |
|                       |  |
|                       |  |
|                       |  |
| Millstone             |  |
| Location: Connecticut |  |
|                       |  |
|                       |  |
|                       |  |
| · ·                   |  |
| l' '                  |  |
| · Sumoik              |  |
|                       |  |
| Oyster Creek          |  |
| Location: New Jersey  |  |
| Planning Area: 1      |  |
| county NY population: |  |
| 48,624                |  |
| (2010 Census)         |  |
|                       |  |
| Richmond              |  |
| ,                     |  |
|                       | James A. FitzPatrick Location: Oswego County Planning Area: 10 counties Population: 1,333,644 (2010 Census)  Cayuga Jefferson Lewis Madison Oneida Onondaga Ontario Oswego Seneca Wayne  Millstone  Location: Connecticut Planning Area: 1 county NY Population: 241,634 (2010 Census) Suffolk  Oyster Creek Location: New Jersey Planning Area: 1 county NY population: |



# **Emergency Information**

#### How You will be Notified

In the event of an emergency at a nuclear power plant, emergency broadcasts will be made on television and radio stations. These broadcasts will provide instructions on what you should do. Watch your television or listen to your radio for Emergency Alert System (EAS) messages, news briefings, and regular updates to learn what actions are being taken, and what recommendations are being made by officials. Please use Annex 1 for a list of EAS radio communications from specific counties within the radios of these nuclear sites. Refer to Annex 1 for EAS communication lists for counties.

Information regarding the safety and handling of food, water, and livestock will be provided through press releases and briefings from local officials. This information will also be made available through Cornell Cooperative Extension – New York Extension Disaster Education Network.

#### Cornell Cooperative Extension – NY Extension Disaster Education Network

Each Cornell Cooperative Extension (CCE) County office is a member of the New York Extension Disaster Education Network (NY EDEN) and is therefore a direct line to state-of-the-art emergency preparedness and response resources available at the nation's Land Grant Universities through the national Extension Disaster Education Network (EDEN).

NY EDEN, and its programmatic home, the CCE All-Hazards Preparedness and Response Program (APREP) partner with the New York State Department of Agriculture and Markets for emergency and disaster education, preparedness, and response and serves as a non-Disaster Preparedness Commission (DPC) member agency of New York State Emergency Support Function Annex of Emergency Support Function 11 – Agriculture and Natural Resources. The Director of the CCE APREP and NY EDEN is Keith Tidball, PhD: Email, KGTidball@cornell.edu and phone, 607-254-5479.

For real-time updates regarding an emergency, especially information regarding the agricultural sector, it is advised that you sign up for updates via the NY EDEN social media offerings (Twitter and/or Facebook).



NY EDEN Twitter - https://twitter.com/CCE Disaster



NY EDEN Facebook - https://www.facebook.com/@CCE.NY.EDEN

# **Cornell Cooperative Extension Offices**

Your local Cornell Cooperative Extension office will be involved in assisting with important communications and information sharing, as well as gathering needs-assessment information when appropriate.

| Albany                      | 518-765-3500 | St. Lawrence                   | 315-379-9192     |
|-----------------------------|--------------|--------------------------------|------------------|
| Allegany and<br>Cattaraugus | 585-268-7644 | Saratoga                       | 518-885-8995     |
| Broome                      | 607-772-8953 | Schenectady                    | 518-372-1622     |
| Cayuga                      | 315-255-1183 | Schoharie and Otsego           | 518-234-4303     |
| Chautauqua                  | 716-664-9502 | Schuyler                       | 607-535-7161     |
| Chemung                     | 607-734-4453 | Seneca                         | 315-539-9251     |
| Chenango                    | 607-334-5841 | Steuben                        | 607-664-2300     |
| Clinton                     | 518-561-7450 | Suffolk                        | 631-727-7850     |
| Columbia and Greene         | 518-622-9820 | Sullivan                       | 845-292-6180     |
| Cortland                    | 607-753-5077 | Tioga                          | 607-687-4020     |
| Delaware                    | 607-865-6531 | Tompkins                       | 607-272-2292     |
| Dutchess                    | 845-677-8223 | Ulster                         | 845-340-3990     |
| Erie                        | 716-652-5400 | Warren                         | 518-623-3291     |
| Essex                       | 518-962-4810 | Washington                     | 518-746-2560     |
| Franklin                    | 518-483-7403 | Wayne                          | 315-331-8415     |
| Fulton and Montgomery       | 518-853-2135 | Westchester                    | 914-285-4620     |
| Genesee                     | 585-343-3040 | Wyoming                        | 585-786-2251     |
| Hamilton                    | 518-548-6191 | Yates                          | 315-536-5123     |
| Herkimer                    | 315.866.7920 |                                |                  |
| Jefferson                   | 315-788-8450 |                                |                  |
| Lewis                       | 315-376-5270 |                                |                  |
| Livingston                  | 585-991-5420 |                                |                  |
| Madison                     | 315-684-3001 |                                |                  |
| Monroe                      | 585-753-2550 |                                |                  |
| Nassau                      | 516-433-7970 |                                |                  |
| Niagara                     | 716-433-8839 |                                |                  |
| Oneida                      | 315-736-3394 | CCE Agricultural Area<br>Teams | 607-255-<br>5225 |
| Onondaga                    | 315-424-9485 |                                |                  |
| Ontario                     | 585-394-3977 |                                |                  |
| Orange                      | 845-344-1234 |                                |                  |
| Orleans                     | 585-798-4265 |                                |                  |
| Oswego                      | 315-963-7286 |                                |                  |
| Putnam                      | 845-278-6738 |                                |                  |
| Rensselaer                  | 518-272-4210 |                                |                  |
| Rockland                    | 845-429-7085 |                                |                  |
| Extension Administration    | 607-255-2237 |                                |                  |

# **Purpose**

This booklet is provided to inform the agricultural community about protective actions that may need to be taken if a radiological emergency occurs at a nuclear power plant within New York, or in a neighboring state or province. This booklet also contains information on how you would be notified and what procedures you may be asked to follow.

New York State and local officials have developed emergency response plans to support and serve the agricultural community in the event of a nuclear power plant emergency. This booklet is intended for farmers, agricultural workers, livestock and poultry owners, fruit and vegetable growers, gardeners, food producers, processors, and distributors.

#### **Definitions**

#### **Emergency Planning Zone**

The Ingestion Pathway Emergency Planning Zone is an area extending outward in a radius of fifty (50) miles from a nuclear power plant. You will see this illustrated on the map on page 6. This includes areas in New York that are within 50 miles of a power plant in an adjacent state or province. When radioactive material is released from a nuclear power plant, it may be deposited on crops, gardens, pastures, and surface water within this 50-mile area. Individuals in this area may risk exposure caused by ingesting radiologically contaminated foods and water.

#### Radiation

Radiation is present at low levels in our environment all the time. Naturally occurring radioactive material can be found in soil and in buildings. Radiation comes from other sources, such as the sun and X-ray machines when they are activated.

The effects of radiation on people and animals depend on the amount and length of time of exposure, and the general health and age of the person or animal. Radioactive gases and particles can be inhaled, ingested, and absorbed through the skin.

#### **Nuclear Power Plant Emergency**

A nuclear power plant emergency may involve a release of radioactive gases and tiny particles into the atmosphere. The gases and particles are spread by the wind and eventually the particles fall and collect on the ground. The distance that gases and particles travel depend on the weather. Strong winds spread lighter particles over large areas while heavier particles fall more quickly. Rain can also force radioactive particles to fall and concentrate in an area.

#### **Radiological Contamination**

Radiological contamination is the presence of radioactive material in unwanted locations. If, during a nuclear power plant emergency, a release of radioactive gases and particles occurs, it is possible that people, animals, crops, animal feed, water, plants, soil, and farm equipment may become contaminated.

The primary concern of contamination is the possibility that people and animals may eat, drink, or breathe in the radioactive material or absorb it through their skin. Once radioactive material enters the body it has the potential to cause health problems.

Your concern as a farmer or food producer is the possibility of radiological contamination entering the human food supply by way of contaminated crops, feed, water, and livestock. Contamination may be passed from plants and animals to humans through milk, meat, and other farm produce.

#### **Protective Actions**

If you are a farmer within 50 miles of a nuclear power plant, actions may be necessary to protect food, feed, water, and livestock in the event of a nuclear power plant emergency. Following a release of radioactive gases and particles, State agencies will send teams to collect samples and conduct tests to determine if contamination occurred. If food and water become contaminated, some protective actions will be necessary. Information and instructions will be provided by local, state, and federal officials through press releases and press briefings.

#### What Are Protective Actions?

Protective Actions are actions taken to prevent or reduce health risks from contamination to people, livestock, and food products. For example, an agricultural product quarantine or embargo may be established until sampling can be performed and testing can confirm that products such as milk and produce are found to be free of contamination.

#### **Giving Animals Protected Water**

Animals need water to survive. Even if you have no protected feed during a radiological emergency, animals can live for several days on water alone. You may be advised to place animals on protected water. Water from closed containers and underground sources, such as covered deep wells and springs, are considered protected and will be safe for livestock. Water in open ponds or streams could be contaminated and should not be used until you are told it is safe to do so.

#### **Protected Feed**

You may be advised to place animals on protected feed. Protected feed means feed that has not been stored in the open or exposed to radioactive contamination. Animal feed that is kept in <a href="enclosed">enclosed</a> barns, sheds, granaries, silos, and intact Ag- Bags is considered protected feed. If feeding from <a href="eovered">covered</a> trench or bunker silos with open ends or opened Ag-Bags, remove and discard the first six to twelve inches of silage from the exposed ends where contamination may have occurred.

Feed that is not considered protected is feed stored outside and directly exposed to air and rain. This includes feed stored in cribs and sheds with open sides, uncovered haystacks or bales, uncovered trench silos, bunkers, and upright silos without doors.

During an emergency, you may need to ration your on-hand supply of protected feed and water. The table on page 12 provides sustenance level feed and water guidelines for common farm animals. Keeping the animals alive is the goal. In addition, these levels will not support high milk production. This may be beneficial if you are faced with a temporary agriculture quarantine. Refrain from offering high quality forage to milking cattle to decrease milk production until you are able to return to regular production. Hay should be based on about 2.5% of body weight on a dry matter basis.

# **Embargoes and Quarantines**

During and following a radiological emergency, State officials may restrict the movement of food products and withhold them from the marketplace, within the 50-mile ingestion pathway zone, to reduce the chance of contaminated products entering the human food supply. This includes wholesale and retail markets, farm stands, and farmers markets. These products should not be released until they are deemed safe or until a decision is made to dispose of them.

You will be instructed how to safely handle and dispose of contaminated food products, and how to decontaminate your animals and property if necessary. Contaminated food will be isolated to prevent it from exposing non-contaminated food and from accidentally entering the marketplace. State officials will determine whether disposal of contaminated products is appropriate and necessary.

#### Lifting an Embargo or Quarantine

After sampling and testing results show that food products are safe, State officials will lift embargoes and quarantines in previously restricted areas. Sampling and testing will be completed as quickly as possible to determine which areas are safe to lift embargoes.

#### **Personal Protection**

Depending upon the amount and type of radioactive material deposited, there may be a period of time when you may not be able to cultivate your land. Agriculture, environment, and health officials will sample, test, and monitor the area to determine the level of risk and provide instructions on how to work safely on your farm. You may be told to take the following precautions:

- Wear protective clothing (similar to that worn during pesticide applications) when working outdoors.
   Remove all outer clothing before entering your home, livestock barns, or milking parlors where you could contaminate your livestock and milking equipment.
- Wear a dust mask or dampened cloth over your nose and mouth if you are plowing, cultivating, disking, baling, or harvesting.
- Consult with State officials about the disposal of protective clothing and dust masks.
- Shower after completing outdoor activities.
- Wash hands thoroughly before you eat.
- If windows were open in your home or barn during the emergency, wash the surfaces where contaminated materials could have deposited.

# **Decontaminating Livestock**

Livestock that have been fed protected feed and water but exposed to external contamination could be used for food if adequately washed and monitored by officials before slaughtering. Animals can be washed using soap and water. You should wear protective clothing similar to that used in pesticide applications to prevent contaminating yourself while handling and washing animals.

#### **Buildings and Farm Equipment**

Buildings and equipment may also be contaminated by radioactive particles. State officials will provide information on how best to decontaminate buildings and equipment. You may be told to wear protective clothing and wash down buildings and equipment with soap and water.

# **Feed & Water Management**

#### The following table provides general estimates.

It does not take into account differences in production, breed, and other management factors. This table will give you a starting point for calculating the supply you may need to store in case of an emergency.

| Animals                       | Estimated Water (Per day)   | Estimated Feed (Per day)                             |
|-------------------------------|---|--|
| CATTLE                        |   |  |
| In Production And<br>Dry Cows | 9 Gallons in Summer<br>and 7 ½ Gallons in<br>Winter                   | 20 Pounds Hay  |
| Weaned Calves                 | 6 Gallons in Summer and<br>3 Gallons in Winter                        | 8-12 Pounds Hay                                      |
| Cow (Pregnant)                | 7 gallons in Summer and<br>6 Gallons in Winter                        | 10-15 Pounds Hay                                     |
| Cow with Calf                 | <ul><li>9 Gallons in Summer and</li><li>8 Gallons in Winter</li></ul> | 12-18 Pounds of Hay                                  |
| Calf (400 Pounds)             | 6 Gallons in Summer and 3 Gallons in Winter                           | 8-12 pounds Hay                                      |
| SWINE                         |   |  |
| Brood Sow with Litter         | 4 Gallons in Summer and 3 Gallons in Winter                           | 8 Pounds Grain                                       |
| Brood Sow (Pregnant)          | <ul><li>1-2 gallons Summer and</li><li>1 Gallon in Winter</li></ul>   | 2 Pounds Grain                                       |
| 150 Pound Gilt or Boar        | 1 gallon  | 3 Pounds Grain                                       |
| SHEEP                         |   |  |
| Ewe with Lamb                 | 4 Quarts  | 5 Pounds Hay   |
| Ewe, Dry                      | 3 Quarts  | 3 pounds Hay   |
| Weaned Lamb                   | 2 Quarts  | 3 Pounds Hay   |
| POULTRY                       |   |  |
| Layers                        | 5 Gallons/100 Birds   | 7 lbs./100 Birds                                     |
| Broilers                      | 5 Gallons/100 Birds   | 10 lbs./100 Birds                                    |
| Turkeys                       | 12 Gallons/100 Birds  | 40 Lbs./100 Birds                                    |
| HORSES                        |   |  |
| 1000 lb. horse                | , ,   | 15-20 lbs. hay, normal grain – depending on activity |
| Foals                         | 1 Gallon/100 lbs body wt.   | 2.2 lbs hay/100 lbs body wt, 1 lb grain              |

# **Sheltering Animals**

You may be asked to shelter your farm animals. This will help prevent radioactive contamination from harming your animals and from entering the human food supply. Barns, milking parlors, machine sheds, garages, corn cribs, and swine or poultry buildings are all possible livestock shelters. An open building, such as a pole barn, provides the least amount of protection.

If shelter is limited, dairy cows and other milk-producing animals should be given priority because these animals can pass contamination on to humans through their milk. Egg producing fowl (layers) and meat fowl (broilers) should also be given priority because contamination of eggs and poultry products can also enter the human food supply.

In addition, you may want to consider putting your best breeding stock and calves, especially newborns with lactating cows, in protected shelter. Bulls, steers, and young weaned heifers may be a lower priority. Dry cows may be a lower priority as well.

Although ventilation systems are needed to keep sheltered livestock healthy, they allow radioactive materials to enter the building. Therefore, it is important to limit outside air from entering the building to the least amount necessary for the animals' safety. Do not use fans for ventilation unless absolutely necessary.

# **Guidance for Spacing Requirements for Farm Animals in Shelters During Disasters**

The following table provides general estimates to assist planning for temporary sheltering of animal indoors in emergency situations. Information has been adapted from Georgia's Department of Agriculture Radiological Emergency Information Brochure.

| Animals             | Square Feet for Short (24-36<br>Hour) Period | Square Feet For Long (2-10 Days) Period |
|---------------------|--|---|
| CATTLE              |  |   |
| 400 lb. calf        | 15/ animal                                   | 25/ animal                              |
| 1200 lb. calf       | 20/ animal                                   | 35/ animal                              |
| Cow with calf       | 40/ unit                                     | 70/ unit                                |
| SWINE               |  |   |
| 150 lb. hog         | 5/ animal                                    | 8/ animal                               |
| 450 lb. sow or boar | 14/ animal                                   | 18/ animal                              |
| Sow with litter     | 30/ unit                                     | 35/ unit                                |
| SHEEP               |  |   |
| Ewe                 | 8/ animal                                    | 12/ animal                              |
| Ewe with lamb       | 10/ unit                                     | 15/ unit                                |
| POULTRY             |  |   |
| Broilers            | 0.8/ animal                                  | 1.5/ animal                             |
| Laying hens         | 0.6/ animal                                  | 1/ animal                               |
| Turkeys             | 2/ animal                                    | 5/ animal                               |

# **Milk and Dairy Animals**

- 1. Remove all dairy animals from pasture and shelter them.
- 2. Give dairy animals protected feed and water.

When a release of radioactive materials has occurred, State officials may visit farms in the area to take samples of milk, feed, and water to test for contamination. They may recommend that milk and dairy products not be consumed or sent to market until test results show that it is safe. Milk should be safe if it is from dairy animals that were sheltered properly and placed on protected feed and water. If dairy animals are not sheltered properly or can access food and water from uncovered sources, radioactive contamination may be absorbed into their bodies and could enter the human food supply.

#### **Contaminated Milk**

If dairy products are found to be contaminated, it will be recommended that milk and milk products be withheld from the marketplace. However, it is possible for milk products contaminated with very low levels of radioactive material to be deemed safe by officials for human consumption. Time will also reduce the amount of radioactive material present in milk. Fluid milk can be kept for long periods of time using ultra-high temperature pasteurization, which may allow radioactive material to decay to a safe level. In addition, producing cheese, dry milk, butter, yogurt, ice cream, and evaporated milk using fluid milk may be an alternative to store product and allow the radioactivity to decrease.

#### **Meat Animals and Meat Products**

You may be asked to place meat animals on protected feed and water and to shelter them. If livestock consume contaminated feed and water, some of the contamination will be absorbed into their bodies and could then enter the human food supply through meat and meat products. Meat animals with internal contamination should not be slaughtered until you are told that it is safe to do so by State officials. Instructions will be given on a case-by-case basis.

# Fruits, Grapes, Vegetables, and Nuts

Officials may recommend that you wash, scrub, peel, and/or shell all locally grown fruits, vegetables, roots (such as carrots), tubers (such as potatoes), and nuts to remove any surface contamination. Fruits and vegetables ripe at the time of a radiological release may be lost because of the risk to humans while harvesting the contaminated fruit. Fruits and vegetables that do not have to be picked immediately could be picked and cleaned after State officials verify that the radioactive levels are safe and/or have decreased.

Canning, freezing, or storage of fruits and vegetables will also allow radioactive levels to decay. Fruits and vegetables should not be consumed or sold until you are told that it is safe to do so by State officials. Harvesting, processing or consumption of wild foods, such as mushrooms or berries, should be controlled in the same manner as fruits, grapes, vegetables, and nuts.

# **Poultry and Poultry Products**

Officials may recommend that your poultry are put on protected feed and water and provided shelter. Poultry raised outdoors, especially those kept for egg production, may be sampled by officials to determine if eggs have radiological contamination. Poultry raised indoors and given protected food and water are less likely to be contaminated. Reduce ventilation in chicken coops and shelters if possible. Ventilation and fans that draw air in from the outside can pull in contaminated particles from outdoors. If poultry products and eggs are found to be contaminated, they should not be eaten and they should not go to market.

#### **Grains**

If grains are permitted to grow to maturity, most contamination may be removed by the wind and rain. Milling or polishing will likely remove any remaining contamination. It can take a month from the time grains are harvested until they reach the consumer and sampling and laboratory analysis will determine if the grain is safe to use. When harvesting potentially contaminated grain, it should be stored separately from grain harvested and stored before the emergency.

# **Bees and Honey**

Honey and beehives may also need to be sampled and analyzed by officials if radiological contamination is found in the area as foraging bees can bring back contaminated pollen, which would allow for the possibility for radiation to be stored in the beeswax. Therefore, an additional three-mile embargo for honey products would be needed beyond standard embargoes for food products.

# Fish, Shellfish, and Aquaculture

Little can be done to protect wild fish and shellfish from radiological contamination in their natural habitat. If approved by Department of Environmental Conservation officials, catch and release fishing may be conducted within the area affected by the emergency. Fish and shell fish should not be harvested for consumption until samples have been tested and determined to be safe. Fish and shellfish raised in ponds, marine waters, or raceways should not be harvested or consumed until samples have been tested and determined to be safe.

# Wildlife and Captive Animals on Game Farms

Wildlife should not be harvested for consumption within the area affected by the emergency until tested and determined to be safe by the Department of Environmental Conservation. To the extent that it is possible, wild birds and animals, such as deer being raised at game farms, within the affected areas should be fed protected feed and water and where possible be provided shelter. Whether or not they were protected, they should not be sold, released, or harvested until approved by State authorities.

# Alpacas, Horses, and other Farm Animals

Animals should be sheltered in a safe enclosure that will not pose danger or stress to the animals being housed. Care should be taken to ensure safe sources of water and feed until restrictions are lifted for other agricultural species. As these animals are not related to food production, it is unlikely that any testing will occur. For horses, in particular, it would be beneficial if an enclosed area is available that could be used for exercise as these animals need exercise to maintain their health.

# **Nursery Stock**

While there is a low potential for significant contamination of nursery stock such as trees, shrubs, plants, and Christmas trees, they should not be removed from the impacted area until evaluated and approved for use by the Department of Agriculture and Markets' Division of Plant Industry.

#### Soil and Water

#### **Protected Water Sources**

Covered wells, covered rain barrels, and covered tanks not connected to surface water are protected water sources. Storage containers that are supplied by runoff from roof tops or other surface drain fields are not protected water sources. Disconnect filler pipes from these unprotected water barrels and tanks to prevent contamination from being washed into the storage container. Water in unprotected storage containers (ones that were not disconnected from surface water sources) should not be used for irrigation or human or animal consumption unless evaluated and approved by State officials.

#### **Soil and Soil Management**

If soil contamination occurs, proper soil management procedures could be implemented to reduce contamination: (1) Idling or non-use of the land for a period of time may be necessary in some cases; (2) Changing the type of crops to non- food/feed crops such as fiber crops of cotton and flax; (3) Deep plowing may keep radioactive material below the plant root zone where the radioactive material can decay and limit absorption by crops. State officials will provide guidance on proper soil management.

# Food and Milk Processors, Warehouses, and Commodity Terminals

Milk and food products in an affected area can become contaminated during collection and processing. After a radiological emergency, State officials may restrict shipment of food products to reduce the chances of contaminated food products from entering the human food supply.

**Processors** - State officials may take samples of food, produce, and finished products for contamination analysis. After testing, they will determine if products are safe for processing and distribution.

**Distributors** - State officials may inspect shipments to check for contamination. After testing, they will determine if the shipment is safe for distribution. This testing may take several days. *Do not release products until they are deemed safe.* 

**Warehouses and Terminals** - Windows and vents to the outdoors should be closed. Vacuum systems should be shut down as should compressed air systems. Any system that draws air from outdoors to the inside should be shut down. Samples of products may be collected and tested to determine whether or not they have been contaminated, and which products are safe and can be released.

# **Protection of Packaged Food Products**

Food in finished packaging, during the time of the radiological material release, should not be harmful to eat as long as the outer wrappings are discarded. Radioactivity will travel as fine particles that may have coated the outside of the food product container. State officials will provide further advice to avoid any contamination from the outside packaging.

# After a Radiological Emergency

#### Re-entry

Re-entry is the controlled, temporary entry into a restricted, contaminated area. If you have been evacuated, you may be allowed to return temporarily to your farm when conditions allow. State and local officials will advise you through EAS broadcasts and other means if re-entry has been allowed (Annex 1). You will receive instructions on what routes to use and safety precautions to take. Re-entry will allow you to perform critical activities such as milking, watering, and feeding of farm animals.

#### Relocation

Relocation of people from homes, farms and/or communities may be necessary when the exposure to deposited radiological contamination is unsafe for people to return and stay.

#### Recovery

Recovery is the process of reducing radiation in the environment to acceptable levels for normal daily living. Following an emergency, State and local officials will identify the types and levels of contamination. They may need to take samples of air, water, soil, crops, and animal products from your farm or business. They will provide you with instructions on how to decontaminate your animals, food, and property.

#### Reimbursement

Federal law requires nuclear power plants to participate in an insurance pool to cover legitimate claims for losses as a result of a radiological emergency.

# **Check List**

| □ Shelter all farm animals, especially dairy producing animals.  |
|--|
| □ Feed and water livestock from protected sources.   |
| ☐ Bring feed into building or cover it if outdoors.  |
| ☐ Store as much water as possible for livestock in enclosed wells or containers.                         |
| □ Cover wells, rain barrels, and tanks.  |
| □ Delay grazing on pasture until you are told it is safe to do so.                                       |
| □ When you go outside, wear outer clothing that covers all areas of your body,                           |
| similar to what you would wear if applying chemicals (e.g. hats, gloves, boots, coveralls, long          |
| shirts, and long pants).   |
| □ Remove outer clothing before going indoors. Once inside, wash your hands and face immediately.         |
| □ Do not use fresh milk, meat, fish, eggs, fruits, or vegetables from your farm or garden until they are |
| sampled and tested or until officials tell you it is safe to do so.                                      |
| □ Do not stir up dust from activities such as cultivating, baling, disking, or harvesting.               |
| □ Do not slaughter any animals until officials tell you it is safe to do so.                             |
| □ Do not process or distribute agricultural products or food products until they are sampled by State    |
| officials, or you are told it is safe to do so. This process may take several days.                      |
| □ Do not destroy agricultural products until officials say it is necessary or safe to do so.             |
| □ Do not fish or hunt in the embargo area until authorities tell you it is safe to do so.                |
| □ Do not harvest wild foods, such as mushrooms or berries, in the embargo area until authorities tell    |
| you it is safe to do so.   |

# **EMERGENCY PLAN**

|                                      | EMERGENCIPLAN                  |
|--------------------------------------|--------------------------------|
| Name of Farm:                        |                                |
| Farm Contact Person:                 |                                |
| Farm (Physical)                      |                                |
| Address: Town:                       |                                |
| Zip Code:                            |                                |
| Global Position System (GPS), Geogra | aphic Information System (GIS) |
| location: Phone Numbers: (Home)      | (Cell)                         |
| Fax or Email:                        |                                |
|                                      |                                |
| Local Emergency Services (911):      |                                |
| Police:                              |                                |
| Fire:                                |                                |
| Emergency Medical Team:              |                                |
|                                      |                                |
| Animal Needs:                        |                                |
| Veterinarian Name:                   |                                |
| Phone Numbers: (Office)              | (Cell)                         |
| Animal Medications:                  |                                |
| Animal Medical Records:              |                                |
| Available Protected Animal Feed:     |                                |
|                                      |                                |
| Grain Stored in Bins:                |                                |
| Hay Stored in Barn/Covered           |                                |
| Shed: Hay Bales Covered by           |                                |
| Tarp/Plastic: Ensilage Stored in     |                                |
| Covered Silo:                        |                                |
| Ensilage in Covered Trench/Bunker:   |                                |

| Available Protected Water:                     |
|--|
| Enclosed Container:                            |
| Freely Running Spring (covered):               |
| Rain Barrels (covered):                        |
| Deep Wells (covered):                          |
| Generator to Pump Water:                       |
| Troughs:                                       |
| Other Source:                                  |
|  |
| Livestock:                                     |
| First Priority Animals:                        |
| Shelter/Location:                              |
| Amount of Protected Feed Required for 7 days:  |
| Amount of Protected Water Required for 7 days: |
| Power/Generator:                               |
| HV/AC:   |
| Poultry Animals:                               |
| Shelter/Location:                              |
| Amount of Protected Feed Required for 7 days:  |
| Amount of Protected Water Required for 7 days: |
| Power/Generator:                               |
| HV/AC:   |
| Other Animals:                                 |
| Shelter/Location:                              |
| Amount of Protected Feed for 7 days:           |
|  |

Amount of Protected Water for 7 day

# **Annex 1: Emergency Alert System (EAS) Radio Stations for Counties**

**Nuclear Faculty: Indian Point** 

Counties: Westchester, Rockland, Orange, Putnam

**Reference Document: Link** 

Primary Emergency Alert System (EAS)

| AM Radio  | FM Radio   | Television |
|-----------|------------|------------|
| WLNA 1420 | WHUD 100.7 |            |

Emergency information could also be carried on the following stations:

| AM Radio  | FM Radio   | Television                    |
|-----------|------------|-------------------------------|
| WOR 710   | WRPJ 88.9  | WCBS Channel 2                |
| WABC 770  | WOSR 91.7  | WNBC Channel 4                |
| WCBS 880  | WNYC 93.9  | WNYW Channel 5                |
| WINS 1010 | WJGK 103.1 | WABC Channel 7                |
| WFAS 1230 |            | NEWS Channel 12 HUDSON VALLEY |

# **Nuclear Facility: R.E Ginna**

Counties: Wayne, Monroe Reference Document: Link

Primary Emergency Alert System (EAS)

| AM Radio  | FM Radio   | Television      |
|-----------|------------|-----------------|
| WHAM 1180 | WDVI 100.5 | WHEC Channel 10 |

# **Nuclear Facility: 9 Mile Point and James A. Fitzpatrick**

Counties: Oswego

**Reference Document: Link** 

Primary Emergency Alert System (EAS)

| AM Radio | FM Radio   | Television     |
|----------|------------|----------------|
| WOR 710  | WYSR 106.9 | WSTM Channel 3 |
| WABC 770 | WYYY 94.5  |                |
|          | WWHT 107.9 |                |
|          | WBBS 104.7 |                |

#### Emergency information could also be carried on the following stations:

| AM Radio | FM Radio  | Television      |  |
|----------|-----------|-----------------|--|
|          | WYNO 88.9 | WTVH Channel 5  |  |
|          | WRVO 89.9 | WSYR Channel 9  |  |
|          |           | WNYS Channel 43 |  |
|          |           | WSYT Channel 68 |  |

**Nuclear Facility: Millstone** 

Counties: Suffolk

**Reference Document: Link** 

Primary Emergency Alert System (EAS)

| AM Radio  | FM Radio   |            | Television      |  |
|-----------|------------|------------|-----------------|--|
| WXLM 980  | QNLC 98.7  | WWHT 104.9 | WFSB Channel 3  |  |
| WLIS 1420 | WYYY 94.5  | WNPR 89.1  | WTNH Channel 8  |  |
| WMRD 1150 | WBBS 107.7 | WPKT 90.5  | WHPX Channel 26 |  |
| WICH 1310 | WKNL 100.9 | WMOS 102.3 | WVIT Channel 30 |  |
|           | WQG 105.5  | WBMW 106.5 | WTIC Channel 61 |  |

2-1-1 Infoline - During times of emergency or disaster the United Way of Connecticut's 2-1-1 informational service serves as the State information hotline. The hotline is accessed toll-free from anywhere in Connecticut by simply dialing 2-1-1. It operates 24 hours a day, 365 days a year. Multilingual call specialists and TDD access are available. Individuals with Voice Over Internet Protocol (VOIP) services can access 2-1-1 by dialing 1-800-203-1234. Rotary phone users should dial 1-800-505-2000 for assistance. Our website link is https://www.211ct.org

Additional EAS information not listed can be found in each county's individual response plan. Additional EAS information on Canadian unclear facilities can be found at this link: <a href="https://www.dhses.ny.gov/radiological-preparedness-documents-and-links">https://www.dhses.ny.gov/radiological-preparedness-documents-and-links</a>.







