INCIDENT ANNEX 9A
VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

VTSEOP
August 21, 2012

LEAD: Department of Public Safety, Division of Emergency Management and Homeland Security

SUPPORT:

The State of Vermont provides guidance to state agencies, local municipalities, and other supporting agencies and organizations that might be called upon to respond to a radiological emergency at a nuclear power plant in the form of a Radiological Emergency Response Plan.

This Plan is primarily written to address incidents and/or accidents at Vermont Yankee Nuclear Power Station in Vernon, Vermont. Vermont Yankee is an operating nuclear plant.

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Revised January 2012

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VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

(Fixed Facility)

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1. PURPOSE OF THE PLAN

This plan has been developed to provide assistance to State and local officials in responding to a radiological incident at the Vermont Yankee Nuclear Power Station. The Radiological Emergency Response Plan is part of the Vermont State Emergency Operations Plan. This annex is published and distributed to users as a complete plan.

This plan includes both the plume and post-plume phases of a nuclear power plant Incident.

This plan places the services of the Vermont State Government in a role of coordination with respect to all local, state, interstate, and federal response. It provides for timely warning of an emergency, an organized manner in which to protect the population at risk, and the use of State resources to assist in response and recovery efforts. The ability of State and local governments and supporting organizations to respond to an emergency occurring at a nuclear power plant in an expeditious and effective manner is critical to ensuring the protection of the health and safety of the public.

The purpose of the plan is to delineate responsibilities and identify the necessary actions to prevent or minimize the health effects from:

(1) Direct long term exposure to deposited radioactive materials and

(2) Ingesting contaminated foods such as milk, fresh fruits and vegetables, or other food stuffs.

In this Plan the terms “Post Plume” and “Ingestion Pathway” are considered to be synonymous. Determining the need for “Relocation” is one of the major tasks in this plan. For brevities sake all three terms are not always included in various titles.

Until the permanently shutdown Yankee Nuclear Power Station in Rowe, Massachusetts is completely decommissioned and all spent fuel removed, the State will be notified and will have a limited response as necessary in the event of an emergency at their facility. The State's actions are described in Section 22 of this document.

SPECIAL NOTE: The Nuclear Regulatory Commission (NRC), the Federal Emergency Management Agency (FEMA) and Entergy Vermont Yankee Nuclear Power Station (VYNPS) and the State of Vermont have agreed that for the purpose of VYNPS providing protective action recommendations and NRC and FEMA conducting federal evaluation, the Town of Marlboro is not in the ten mile Emergency Planning Zone (EPZ). However, in an actual emergency the State of Vermont considers the Town of Marlboro to be in the ten mile EPZ and will include the town of Marlboro in protective action decisions. The Town of Marlboro is included in state training and other EPZ activities but is not federally evaluated.

A. Assumptions

The probability of an emergency at VYNPS with a release of radioactive material to the environment which requires public protective actions is considered extremely low due to redundant safety systems and the design and structural specifications required and enforced by the Nuclear Regulatory Commission. However, in order to be prepared if an emergency was to occur, appropriate plans and procedures have been developed to ensure public safety and protection. Utility, state, local, and federal response personnel are available to support the response efforts.

B. Emergency Response Planning

The Commissioner of Public Safety has designated the Vermont Division of Emergency Management and Homeland Security (DEMHS) as the state/local planning authority for the development of the Vermont Radiological Emergency Response Plan.

The Director of Vermont Emergency Management is responsible for all emergency preparedness in Vermont. Planning and interface functions have also been assigned to the Director of Vermont DEMHS. Assistance is provided by the DEMHS staff and personnel from various Vermont state government organizations.

Radiological Emergency Response Planning is authorized under Title 20, Vermont Statutes Annotated, Section 38.

Local (town) planning authority and personnel designations are local responsibilities. The State of Vermont has accepted the responsibility for providing assistance to any community which could be affected by a radiological emergency to ensure the development of adequate local plans which interface with the State plan. Some organizations require operational plans which utilize both local and state resources to accomplish response actions. State planning assistance is also made available to these organizations.

State agency planning authority and personnel designations are made at the discretion of the agency heads. All participating State organizations will develop operational procedures in support of the VRERP. Vermont DEMHS is responsible for ensuring that all plans and procedures are compatible with one another and that there is inter-operability between them all.

The acceptance of each town, institutional and State organization plan by authorized representatives and designated state officials will constitute an operational agreement between the parties, eliminating the need for separate letters of agreement for each participant.

C. Basis for Emergency Planning

The basis for emergency planning for nuclear power plants is found in Title 10, Code of Federal Regulations, Part 50, and in the criteria presented in NUREG-0654, FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." These documents provide guidance relative to the activities, personnel, facilities, and equipment which should be in place in order to establish an effective emergency response capability. NUREG-0396 defines and describes the basis for the 10-mile plume exposure pathway emergency planning zone and the 50-mile ingestion exposure pathway emergency planning zone.

D. Basis for Evaluation of Contamination of Human Food and Animal Feed

Guidance and recommendations put forth by the federal Food and Drug Administration (FDA) or other relevant approaches, tools and/or recommendations, (including but not limited to dose limits) deemed appropriate by the Radiological Health Advisor may be used by the State of Vermont in the evaluation of potentially contaminated human food and animal feed and considered in the development of protective action recommendations for the Ingestion Pathway.

For example, to help prevent or reduce potential internal exposure to radiation due to ingestion of accidentally contaminated human food, it may be deemed appropriate to use the following 1998 FDA Protective Action Guides (PAGs):

(a) 0.5 rem Committed Effective Dose Equivalent (CEDE) or
(b) 5 rem Committed Dose Equivalent (CDE) which ever is more limiting.

(Reference: Federal Register, Volume 63, No. 156, dated August 13, 1998)

(1) The State of Vermont may use the Protective Actions recommended by FDA or other actions deemed appropriate by the Radiological Health Advisor. Necessary protective measures and public concern may require modification of the collection, production, processing, and marketing cycle of potentially contaminated products within the affected areas.

(2) The State of Vermont has the responsibility and authority to initiate protective actions in the event that a radiological incident results in radioactive contamination of food, water or milk.

(3) Protective actions would be ordered by the Governor as advised by the Health Services Coordinator, the Secretary of the Agency of Agriculture, Food and Markets, and the Secretary of the Agency of Natural Resources. The Commissioner of the Vermont Department of Health or designee will assume the role of the Health Services Coordinator.

(4) The decision to recommend protective actions is based on known releases to the environment, radiological measurements, laboratory analyses, and integrated dose projections. It is recommended, with the exception of precautionary sheltering of milk animals, that actions not be taken without consideration for the health, economic, and social impacts of such actions.

2. EMERGENCY CLASSIFICATION

A. Plant Safety Analysis

The Nuclear Regulatory Commission (NRC) requires that the primary assurance of safety be obtained by the application of rigorous standards to the design, construction, and operation of a nuclear facility, and through extensive quality assurance actions. In accordance with the defense in-depth concept, safety features and engineered safeguard systems are provided to prevent or mitigate the consequences of an accident.

In accordance with federal regulations, Vermont Yankee has evaluated the ability of the plant to withstand accidents without posing a hazard to the health and safety of the public. Vermont Yankee has performed safety analyses which address:

(1) The margins of safety during normal operations, abnormal operational transients and accidents.

(2) The adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents.

The conditions analyzed range from anticipated operational occurrences which might occur with moderate frequency but result in no significant risk to the public, to accident situations with a theoretical potential for off-site consequences requiring protective actions, but which are very unlikely to occur. The range of incidents considered are categorized as:

(1) Events of moderate frequency leading to no abnormal radioactive release from the facility.

(2) Events of small probability with the potential for a small radioactive release from the facility.

(3) Potentially severe accidents of extremely low probability, postulated to establish the performance requirements of engineered safety features.

B. Emergency Classification Level Scheme

The wide spectrum of component or system failures, or other occurrences that could potentially reduce plant safety margins, are categorized into a classification system that categorizes incidents according to severity.

The four emergency classification levels in ascending order of severity are:

UNUSUAL EVENT
ALERT
SITE AREA EMERGENCY
GENERAL EMERGENCY

These four levels are agreed upon between the licensee and State and local governments. The classification of an event may change as conditions change. The incidents leading to each of the four emergency classifications are further identified by certain measurable and observable indicators of plant conditions known as Emergency Action Levels (EALs). The Emergency Action Levels are provided in the Vermont Yankee Nuclear Power Station Emergency Plan and are described in the Vermont Yankee Emergency Action Level Technical Bases Revision 8, 2009.

State and local governments have plans and procedures in place that provide for response actions to be taken at each emergency classification. Prompt notification by the utility to off-site authorities is required within 15 minutes of the declaration of an emergency and for each escalation. Time is measured from when the control room operator recognizes the emergency condition to notification of off-site authorities.

The four Emergency Classification Levels (ECLs) are defined as:

UNUSUAL EVENT

Class Description Unusual Events are in process or have occurred that indicate a potential degradation in the level of plant safety. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

Purpose Off-site officials are notified to: (1) assure that the first step in any response later found to be necessary has been carried out, (2) bring the operating staff to a state of readiness, and (3) provide systematic handling of information and decision making.

ALERT

Class Description Alert indicates that events are in process or have occurred that involve an actual or potential substantial degradation in the level of plant safety. Releases are expected to be limited to small fractions of the U.S. Environmental Protection Agency (EPA) Protective Action Guides (PAGs) exposure levels.

Purpose The purpose of the Alert declaration is to (1) ensure that on-site emergency personnel are readily available to respond if the situation becomes more serious or to perform confirmatory radiation monitoring, if required, and (2) ensure that off-site response centers are staffed, and (3) provide off-site authorities with current status information.

SITE AREA EMERGENCY

Class Description Site Area Emergency indicates that events are in process or have occurred that involve actual or likely major failures in plant functions needed for protecting the public. Releases are not expected to exceed EPA PAG exposure levels, except near the site boundary.

Purpose The purpose of the Site Area Emergency declaration is to (1) ensure that off-site authorities are prepared to initiate precautionary actions, if required, (2) ensure that monitoring teams are dispatched, (3) assure that personnel required for evacuation of near-site areas are at duty stations if the situation becomes more serious, (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.

GENERAL EMERGENCY

Class Description General Emergency indicates that events are in process or have occurred that involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity. Releases can reasonably be expected to exceed EPA PAG exposure levels off-site, beyond the immediate site area.

Purpose The purpose of the General Emergency declaration is to (1) initiate predetermined protective actions for the public, (2) provide continuous assessment of information from licensee and off-site organization measurements, (3) initiate additional measures as indicated by actual or potential releases and (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.

C. Termination of an Emergency Classification

A declared emergency classification is canceled because the underlying conditions have been fixed or neutralized and the plant is considered safe. Emergency classifications do not de-escalate. Once declared, all of the underlying conditions must be corrected before the condition is canceled. The act of canceling that condition is called “termination”.

FOR EXAMPLE: If the plant declares a Site Area Emergency, it doesn’t fix one problem and de-escalate to an Alert and fix another problem and de-escalate to Unusual Event. They take actions to shutdown the reactor, resolve all of the safety issues and “terminate” the Site Area Emergency.

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3. INTRODUCTION TO RADIATION

"Radiation" is **energy moving through matter and space as waves or particles.** **"Ionizing Radiation"** is energy which disrupts some of the atoms in its path as it moves through matter, separating them into electrically charged (+ or -) pieces called **"ions"**. This ability to break or split atoms distinguishes ionizing radiation from other types and makes it harmful to living tissue.

The human body is made of trillions of atoms, so when a few are ionized by small doses of ionizing radiation there is no noticeable physical effect. Conversely, large doses of ionizing radiation can ionize many atoms and result in sickness or even death to an individual.

There are several types of ionizing radiation to consider when discussing the effects of an accident at a fixed nuclear facility. **ALPHA** and **BETA** particles, **GAMMA** rays and **NEUTRONS** all have different characteristics, and consequently varied effects upon matter.

ALPHA particles are large particles and can travel only about an inch in air. They have almost no penetrating effects and can be stopped by a thin sheet of paper or the surface of skin tissue. **ALPHA** particles do not pose a serious threat to humans as long as they remain outside the body. They can become extremely dangerous if ingested or inhaled, damaging internal organs.

BETA particles are smaller particles and can travel several feet through air. An inch of wood or a thin sheet of aluminum will stop **BETA** particles, but they can penetrate and cause damage to skin tissue.

GAMMA rays can travel hundreds of feet in air and penetrate most materials. They can be stopped by lead shielding, or thick concrete. **GAMMA** rays can cause damage to the whole body.

NEUTRONS have characteristics similar to **GAMMA** rays in travel and penetration. Neutrons are shielded by hydrogenous materials like water.

Measuring ionizing radiation is complicated as different types have varying effects on different materials. Four basic terms are used to quantify these effects, each with its own specific purpose.

The **ROENTGEN** was the first unit used to measure radiation. **A roentgen is a measure of the ionization of air by GAMMA rays or X-rays**. One roentgen is the amount of **GAMMA** rays which will ionize 2,080,000,000 atoms in one cubic centimeter of air. A roentgen is not applicable in describing the effects of **GAMMA** rays on other materials. The **RAD** was developed to measure radiation effects upon other materials. The letters represent the phrase **R**adiation **A**bsorbed **D**ose. **A rad measures the energy per gram absorbed by matter as a result of radiation**. It can apply to any substance, affected by

any type of radiation. The quantity of radiation necessary to deposit 100 ergs (a very small measure of energy) to one gram of absorbing material is one rad, and it differs with different types of radiation. Equal numbers of rads of different types of ionizing radiation have different biological effects on humans.

The **REM** was developed to measure biological effects of radiation. Rem is a simple way of expressing radiation in terms of its impact on people. The rem got its name from the phrase **"Roentgen Equivalent Man." A rem is the amount of any type of radiation which produces the same biological effect as one roentgen of gamma rays or X-rays.** The rem equalizes the differences in effects of the various types of radiation on people. One rem of alpha particles expresses the same biological effect as one rem of gamma rays. The rem is probably the most useful measure of radiation for general discussion. Because radiation is likely to occur in very small amounts, some measurements are made in **millirems**. **A millirem is one/one-thousandth of a rem (.001 rem).**

The **CURIE** is the unit used to measure radioactivity. It was named after Marie and Pierre Curie, research pioneers in the field. **A curie is a measure of the number of atoms disintegrating per second in radioactive material.** A curie is equal to 37 billion disintegrations per second. Measuring small amounts of radioactivity requires the use of picocuries which are only one-trillionth of a curie.

Because radioactive materials emit individual patterns of alpha and beta particles and gamma rays, there is no simple conversion of curies to rads or rems. Each substance has an individual character depending upon the combination and proportion of radiation types it emits. This requires a different formula to compute a relationship.

Human exposure to ionizing radiation is measured in millirems and rems which cumulatively become a dose. The greater the dose, the greater the biological effect. It is impossible to predict precisely how an individual will respond to a particular dose as it will vary from one person to another. A dose depends upon the amount of radiation being emitted, the distance from the source, the length of exposure time, and the total area of the body exposed.

Radiation is present in the environment. Natural radiation sources annually produce an average dose of approximately 0.31 rem (310 millirems) for each person in the United States. By far the largest dose of man-made radiation would be produced by medical procedures which could average about 300 millirems per year. Estimated dose rates for Americans from all sources averages 0.62 rem (620 millirem) a year.

Federal and international health agencies have studied the effects of radiation and recommend that exposure of the general population should not exceed 100 millirems or one-tenth a rem annually.

4. AUTHORITIES AND REFERENCES

A. State and Local Authorities

Radiological Emergency Response Planning is authorized under Title 20, Vermont Statutes Annotated, Section 38.

The Commissioner of Public Safety has designated the ~~Vermont Emergency Management~~Vermont DEMHS Division (Planning Section) as the State/Local Planning Authority for the development of the Vermont Radiological Emergency Response Plan. Planning and interface functions have been assigned to the Director of Emergency Management. Assistance is provided by the Department of Public Safety Planning Division, the ~~Vermont Emergency Management~~Vermont DEMHS staff, and personnel from various participating Vermont State Government agencies. State agency planning authority and personnel designations are at the discretion of the agency heads.

The Commissioner of the Vermont Department of Health coordinates ingestion pathway decisions with assistance from accident assessment personnel from various state agencies, federal agencies, and the Vermont Yankee Nuclear Power Station.

Local (town) planning authority and personnel designations are local responsibilities. The State of Vermont has accepted the responsibility for providing assistance to any community which could be affection by a radiological emergency to assure the development of adequate local plans which interface with the State plan.

The acceptance of each town, institutional and State organization by authorized representatives and designated State officials will constitute an operational agreement between the parties, eliminating the need for separate statements of understanding for each participant.

B. State References

(1) Title 3, Vermont Statutes Annotated, (VSA) Chapter 51, Creation of Agency of Natural Resources and Supporting Department.

(2) Title 6,VSA, Chapter 102, Section 1159, Authority to condemn and destroy an animal.

(3) Title 6, Vermont Statutes Annotated (VSA), Section 491, Authority to condemn and Destroy Adulterated Maple Syrup

(4) Title 6, VSA, Chapter 102, Section 1159, Authority to condemn and destroy animals

(5) Title 10, VSA, Chapters 41, 56 and 61, Detailed Authority for Fish and Wildlife, Forest and Parks, and Department of Environmental Conservation

(6) Title 18, VSA, Sections 1218 and 1282, Water Pollution and Public Drinking Water

(7) Title 18, VSA, Sections 4055 and 4059, Authority to Condemn and Destroy Contaminated Food Products

(8) Title 18, VSA, Chapter 31, New England Compact on Radiological Health Protection.

(9) Title 18, VSA, Chapter 32, Ionizing and Non-ionizing Radiation Control

(10) Title 20, VSA:

Section 2(7)	"Radiological Incidents" - natural disasters defined as any mishap or occurrence involving radiological activity which may pose a threat to persons or property.
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Section 10	Requests to the Governor by municipal authority
Section 20	Immunities and defenses
Section 38	State Response Plan Authority. Special funds radiological emergency response
Section 601	Call out of the National Guard
Chapter 3	Interstate Civil Defense Compact

C. Federal References:

The following is a list of documents published by federal agencies that would be used in a radiological response and in some cases may form the basis of various parts of plans and procedures.

(1) NUREG-0396 (EPA 520/1-78-016), "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," December 1978

(2) NUREG-0654 FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response and Preparedness in Support of Nuclear Power Plants," November 1980

(3) EPA-400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," May 1992

(4) 67_FR_20580, “Radiological Emergency Preparedness Exercise Evaluation Methodology”, published in the Federal Register on September 12, 2001, and amended Aril 25, 2002

(5) 66_FR-47546, “FEMA Radiological Emergency Preparedness Alert and Notification”, September 12, 2001

(6) FDA, 1998 Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies.

(7) FRMAC Operations Manual, (DOE/NV/25946-980) Dated May 2010

(8) FRMAC Health and Safety Manual (DOE/NV/11718-440) Dated May 2001

(9) FRMAC Monitoring Division Manual, Volume 1, (DOE/NV/11718-853 Vol 1) Dated December 2005

(10) FRMAC Monitoring and Analysis Manual, Radiation Monitoring and Sampling, Volume 2, (DOE/NV/11718-181 Vol 2) Dated December 2005

(11) FRMAC Laboratory Analysis Manual, (DOE/NV/11718-852) Dated December 2005

(12) FRMAC Assessment Manual, Volume 1 - Overview and Methods, (SAND 2010-1405P) Dated April 2010

(13) FRMAC Assessment Manual, Volume 2 - Pre-assessed Default Scenarios, (SAND 2010-2575P) Dated February 2010

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D. State and Local Plans

The following is a list of plans, including this plan, that have been developed to respond to a possible incident or accident at either Vermont Yankee or Yankee Rowe

PLAN / MANUAL / IP / COMPONENT NAME
1. STATE PLANS:
A. PLANS:
(1) Vermont State Emergency Operations Plan
(2) Vermont Radiological Emergency Response Plan
(3) Staging Area Emergency Response Plan
(4) Bellows Falls Union High School Reception Center Plan
B. MANUALS:
(1) Notification Manual (State Warning Points and Pager Carrier Plan and Procedures)
(a) Dispatch Edition
(b) Standard Edition
(2) Information Officer EPZ Briefing Manual
(3) Traffic and Access Control Manual
2. TOWN PLANS:
A. BRATTLEBORO
B. DUMMERSTON
C. GUILFORD
D. HALIFAX
E. MARLBORO
F. VERNON
3. SCHOOL PLANS:
A. WINDHAM SOUTH EAST SUPERVISORY UNION (WSESU):
(1) Superintendents Office
(2) Vernon Elementary School

PLAN / MANUAL / IP / COMPONENT NAME
(3) Guilford Central School
(4) Oak Grove Elementary School
(5) Early Education Services
(a) Canal Street Head Start and Early Head Start
(b) Elementary Co-op Program (Esteyville School)
(6) Green Street School
(7) Brattleboro Union High School (includes SE VT Career Ed Ctr)
(8) Academy School
(9) Dummerston School
B. WINDHAM SOUTH EAST SUPERVISORY UNION (WSWSU):
(1) Superintendent's Office
(2) West Halifax School
4. OTHER LOCAL PLANS
A. HOSPITALS
(1) Brattleboro Retreat
(2) Brattleboro Memorial Hospital
(a) Staff and Patient Plan
(b) Brattleboro Memorial Hospital Radiological Contaminated Casualty Protocol
B. NURSING HOME and ASSISTED LIVING FACILITIES
(1) Hilltop House
(2) Holton Home
(3) Pine Heights
(4) Thompson House
(5) Vernon Advent Christian Home
C. CHILD CARE CENTERS (GENERIC):

PLAN / MANUAL / IP / COMPONENT NAME
(1) Town of Brattleboro
(2) Town of Dummerston
(3) Town of Guilford
(4) Town of Halifax
(5) Town of Marlboro
(6) Town of Vernon
D. COLLEGES and PRIVATE SCHOOLS (w/o Child Care)
(1) Community House
(2) Hilltop Montessori
(3) Meadows School (at Brattleboro Retreat)
(4) School for International Training
(5) St Michael's School
(6) Vermont Center for the Deaf and Hard of Hearing
E. SUMMER CAMPS and CAMP GROUNDS:
(1) Brattleboro North KOA Campground
(2) Camp Waubanoug
(3) Fort Dummer State Park
(4) Green Mountain Camp for Girls
(5) Hidden Acres Campground
(6) Neringa
F. OTHER PLANS OR PROCEDURES:
(1) Rescue. Inc., Ambulance Procedure for managing contaminated & injured patients originating from Vermont Yankee Nuclear Power Station.
(2) Vermont Radiological Response Emergency Alert System (EAS) Procedure for the Windham County, Vermont EAS Area.
(3) Radio Station WTSA EAS Procedures
(4) Radiological Plume Tracking Team

PLAN / MANUAL / IP / COMPONENT NAME
(5) Radiological Sampling Team
5. AGENCY-SPECIFIC PROCEDURES FOR:
A. Department of Public Safety
(1) Vermont DEMHS
(2) Vermont State Police
(3) Criminal Justice Services
B. Department of Health
C. Department of Public Service
D. Agency of Human Services
E. Agency of Agriculture, Food and Markets
F. Agency of Transportation
G. Agency of Natural Resources
(1) Department of Environmental Conservation
(2) Department of Fish and Wildlife
(3) Department of Forest, Parks and Recreation
H. Vermont National Guard
I. Civil Air Patrol
J. American Red Cross
6. UTILITY REFERENCES:
A. Vermont Yankee Nuclear Power Station Emergency Action Level Technical Bases, Revision 8, 2009
B. Vermont Yankee Nuclear Power Station Development of Evacuation Time Estimates February 2005 Revision 1

5. LEGAL LIABILITY

The **legal liability** for damages resulting from an incident at any nuclear power plant is established at the time of the issuance of a license to operate. The Nuclear Regulatory Commission requires each licensee to have and maintain financial protection in the form of liability insurance. The owners and operators of Vermont Yankee Nuclear Power Station in Vernon, Vermont, have liability insurance with the American Nuclear Insurers (ANI) of Hartford, Connecticut.

In the event a nuclear incident at Vermont Yankee results in damages greater than the amount covered by their private insurance carrier, additional liability will be assumed by the government of the United States of America under the **Price-Anderson Act, Public Law 85-256. The Price-Anderson Act** is an amendment to the **Atomic Energy Act of 1954** and provides for indemnification up to seven billion dollars, including reasonable costs for the investigation and settlement of claims.

Damage claims following a nuclear incident will be handled first by the insurance carrier, and if the damages exceed the amount of coverage, by the United States government. If damages from a single nuclear incident appear to exceed the total of available resources for public liability, the licensee may apply to the appropriate district court of the United States for orders to enforce the provisions of the Price-Anderson Act. Such enforcement will include an order limiting the liability of the licensee and additional orders designed for equitable distribution of settlement funds as may be required.

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6. PLANNING CONCEPTS

A. Emergency Planning Zones

The U.S. Nuclear Regulatory Commission (NRC)/U.S. Environmental Protection Agency (EPA) document entitled, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," NUREG-0396 provides the planning basis for off-site emergency response plan development. Prepared by an NRC and EPA Task Force on Emergency Planning, NUREG-0396 presents the concept of generic Emergency Planning Zones (EPZs) as a basis for planning response actions which would result in dose savings in the environs of nuclear facilities in the event of a serious nuclear power reactor accident. The EPZ concept was endorsed by the NRC and the EPA. The Federal Emergency Management Agency (FEMA) has concluded that the guidance in NUREG-0396 should be used as a planning basis for emergency preparedness around nuclear power facilities. The NRC/FEMA document entitled, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654, FEMA-REP-1, Rev. 1, provides a common reference and guidance source for State and local governments and nuclear facility operators in the development of radiological emergency response plans in support of nuclear power plants. The EPA's, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," provides radiological protective guidance that may be used in developing plans and making decisions.

Protective action guides, accident considerations, and planning needs are factors central to the EPZ concept and development. The EPZs are designated as areas for which plans are prepared to ensure that prompt and effective actions can be taken to protect the public in the event of an accident. EPZs are considered essential for responding to any accident that would produce off-site doses in excess of the protective action guides. For commercial reactors, a radius of about 10 miles (see Figure 6-1) was selected for the plume exposure pathway EPZ, and a radius of about 50 miles (see Figure 6-2) was selected for the Ingestion Pathway Zone (IPZ).

Although the radius for the generic EPZ implies a circular area, the actual shape depends upon the characteristics of a particular area. Adjustments are often made to accommodate existing boundaries, such as town lines, major roads, or rivers. The EPZ is of sufficient size to provide a dose reduction to the population from design basis accidents. The EPZ also provides for substantial reduction in early severe health effects for the more severe accidents.

(1) Plume Exposure Pathway Zone

The delineation of the Plume Exposure Pathway EPZ is consistent with NUREG-0654, FEMA-REP-1, using appropriate natural geopolitical boundaries within an approximate ten-mile radius (Figure 6-1). Within this area, detailed plans have been developed to protect the public from receiving radiation exposure from an airborne plume in excess of allowable federal limits. These plans are described in this document.

Principal exposure pathways in the Plume Exposure Pathway EPZ are: a) whole body external exposure to gamma radiation from the plume and from deposited materials, and b) inhalation exposure from the passing radioactive plume. The time of potential exposure could range in length from hours to days.

(2) Ingestion Pathway Zone

The Ingestion Pathway Zone (IPZ), as described in NUREG-0645, FEMA-REP-1, is the area where protective action plans are required relative to the food chain (Figure 6-2). This zone encompasses an area with not less than a 50-mile radius around Vermont Yankee. The cities and towns located within the Ingestion Exposure Pathway Zone are listed in the "0-50 Mile Contact List." Ingestion planning includes consideration of protective actions to prevent or mitigate radioactive contamination of water, milk or food which is consumed directly or indirectly. Thus, animal feed for farm animals whose milk or meat is consumed is also of concern. Emphasis in placed on preventing contamination of food in preference to protective actions following contamination.

The emergency planning zones have been further divided into sectors, corresponding to sixteen standard compass directions. The bearing of each sector is indicated by the letter or letters denoting the compass point. Each sector includes 22½ degrees.

The 0-10 mile population by EPZ town is shown in Table 6-1. Table 6-2 depicts school populations for the five Vermont EPZ towns. The 0-50 mile population distribution around the Vermont Yankee Nuclear Power Station is contained in Table 6-3.

The best available estimate of the permanent resident population located in a 10-mile radius from the plant is shown in Figure 6-3. The best estimate of the transient population located in a 10-mile radius from the plant is shown in Figure 6-4. The best estimate of the population in the Plume Exposure Pathway Zone (EPZ) and Ingestion Exposure Pathway Zone (IPZ) is shown in Figure 6-5.

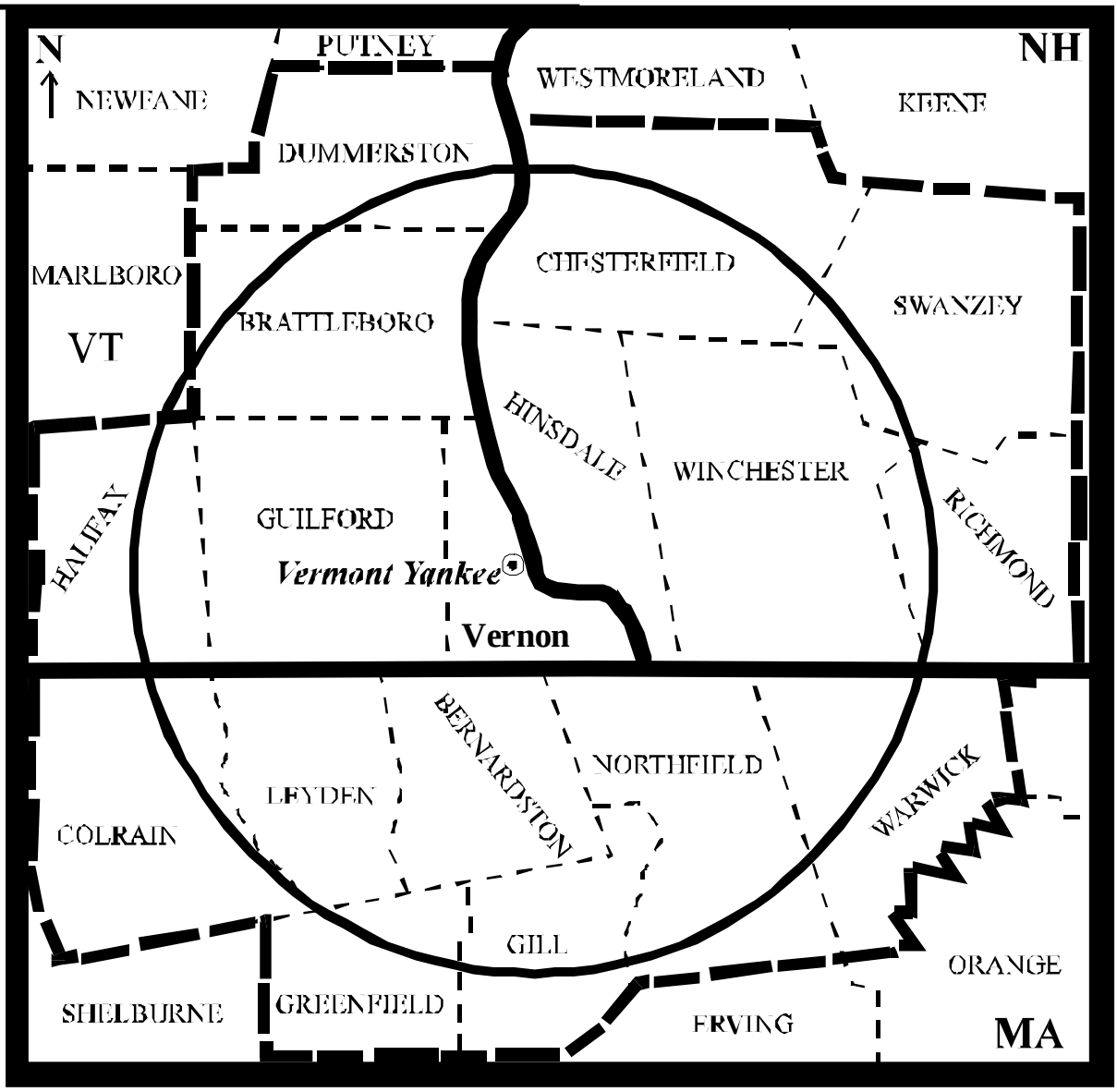
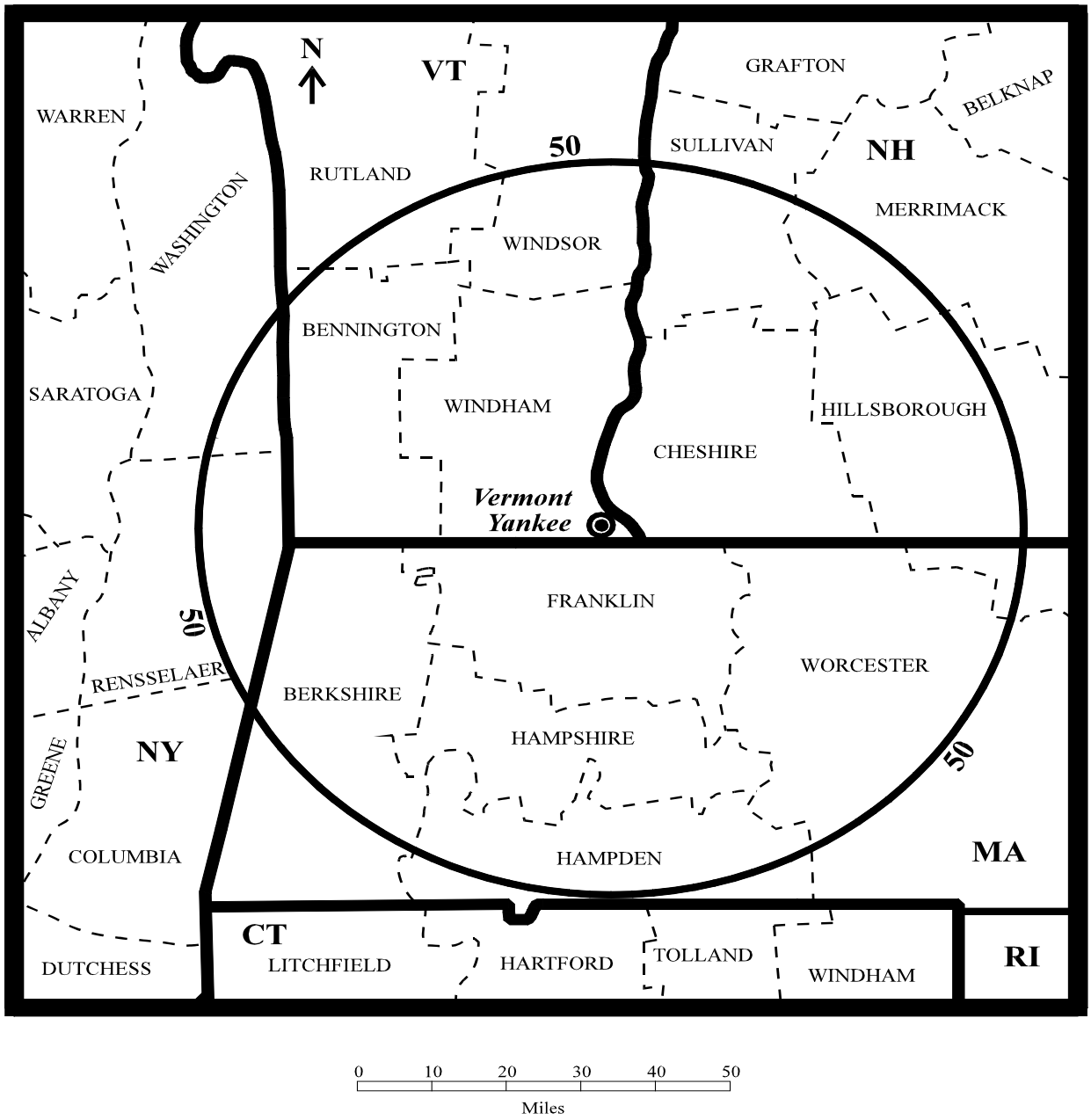


Figure 6-1

Plume Exposure Pathway Zone



NOTE: *The above named jurisdictions are counties.*

FIGURE 6-2

Ingestion Pathway Zone

TABLE 6-1
2000 Population Distribution by EPZ Town
(0-10 miles)

Town	Plume Exposure Pathway EPZ Boundary[1]	Total Town Residential Population[2]	Transient Population
Brattleboro	Partial	12005	5500
Dummerston	Partial	1915	20
Guilford	Entire Town	2046	None[3]
Halifax	Partial	782	None[3]
Vernon	Entire Town	2141	320
	Total Residential	**18,889**	
	Total Transient		**5,840**
	EPZ Total		**24,729**

[1]Protective actions are implemented on a whole town basis.
[2]Population figures reflect town residential population.
[3]As identified in the Vermont Yankee Evacuation Time Estimates, the towns of Guilford and Halifax do not have any recreation areas or motels.

The census change from 1990 to 2000 was very small. The EPZ total went from 24,323 in 1990 to 24,729 in 2000 for an increase of 406. Some towns such as Brattleboro decreased while all of the other towns increased in population. The transient estimate was left the same.

Note: The 2005 Population Estimates used in the 2005 Evacuation Time Estimate show some increase and are as follows:

Town	Resident Population	Transient Population
Brattleboro	11,889	5,534
Dummerston	1,942	1,064
Guilford	2,101	723
Halifax	902	0
Vernon	2,303	793
EPZ Sub-total	19,137	8,114
	EPZ Total	27,251

TABLE 6-2

Vermont EPZ Town School Population Data*

Town	School	No. of Students	No. of Teachers	No. of Support Staff	Total
Brattleboro	Canal Street School (Grades K-2)	57	18	8	113
	Green Street School (Grades K-5)	329	26	23	304
	Oak Grove School (Grades 5-6)	189	18	17	175
	Brattleboro Union High School** (Grades 7-12)	1228	189	84	1720
	Academy School (Grades K-5)	552	37	44	457
Dummerston	Dummerston East School (Grades K-8)	197	23	14	220
Guilford	Guilford Central School (Grades K-8)	198	29	11	272
Halifax	West Halifax School (Grades K-8)	59	6 F-T 7 P-T	7 F-T 2 P-T	85
Vernon	Vernon Elementary School (Grades K-6)	208	25	12	241
				Total EPZ School Population =	**3587**

F-T = Full time Teachers and Support Staff P-T = Part time Teachers and Support Staff

* Based on October 2004 School Population Data.

** Brattleboro Union High School includes the Senior High (9-12), Junior High (7-8), and the Southeastern Vermont Career Education Center (SVCEC).

The approximate number of Junior and Senior High students attending the Brattleboro Union High School from the following communities are:

Vernon - 144; West Halifax - 0; Guilford - 115; Brattleboro - 832; Dummerston - 97; = 1188

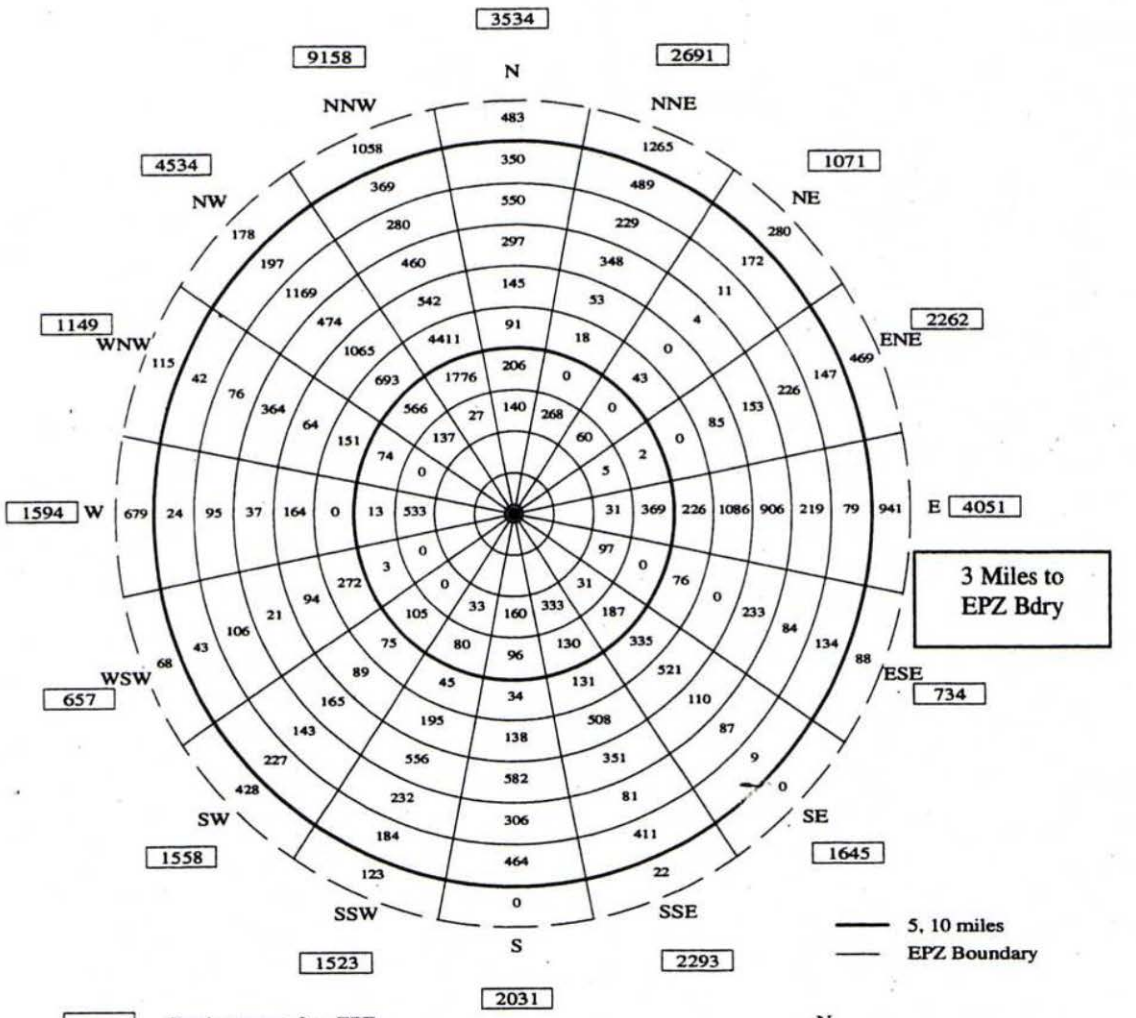
NOTE: The above information was obtained from:
Barbara Nowakowski - WSESU (802)254-3730 VM (802) 254-3733 FAX
Rhonda Lackey - WSWSU(802)464-1300 VM (802) 464-1303 FAX

TABLE 6-3

2000 Population Distribution

(0-50 miles)

Sector	0-5	5-10	10-20	20-30	30-40	40-50	Sector Totals
N	1,153	1,178	3,407	10,292	16,570	14,648	47,248
NNE	368	934	5,470	4,199	5,425	19,810	36,206
NE	328	143	22,058	2,536	5,315	11,010	41,390
ENE	1,280	767	8,183	6,744	10,365	22,919	50,258
E	608	2,350	3,004	11,949	13,953	47,440	79,304
ESE	156	542	1,494	20,506	66,379	98,979	188,056
SE	593	943	13,875	8,042	12,006	98,042	133,501
SSE	546	1,627	2,390	3,494	16,339	35,240	59,636
S	476	1,467	9,522	40,718	64,673	342,689	459,545
SSW	214	1,334	21,488	10,615	36,090	47,691	117,432
SW	216	618	4,691	2,331	5,796	16,155	29,807
WSW	187	371	1,254	6,354	24,579	51,651	84,396
W	194	347	1,765	4,744	23,348	11,720	42,118
WNW	319	561	2,458	1,256	16,167	11,671	32,432
NW	644	3,415	1,359	1,174	4,424	4,211	15,227
NNW	2,197	6,913	1,997	1,625	2,640	3,771	19,143
Total	9,479	23,510	104,415	136,579	324,069	837,647	1,435,699



Population			
Ring Miles	Ring Subtotal	Total Miles	Cumulative Total
0-1	245	0-1	245
1-2	2782	0-2	3027
2-3	2154	0-3	5181
3-4	1855	0-4	7036
4-5	3607	0-5	10643
5-6	6600	0-6	17243
6-7	4749	0-7	21992
7-8	5061	0-8	27053
8-9	3893	0-9	30946
9-10	3340	0-10	34286
10-EPZ	6198	0-EPZ	40484

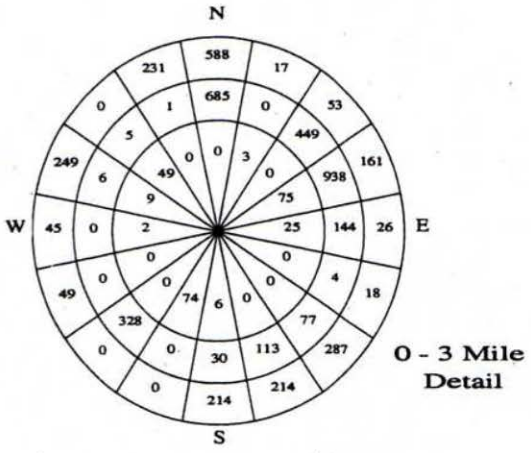
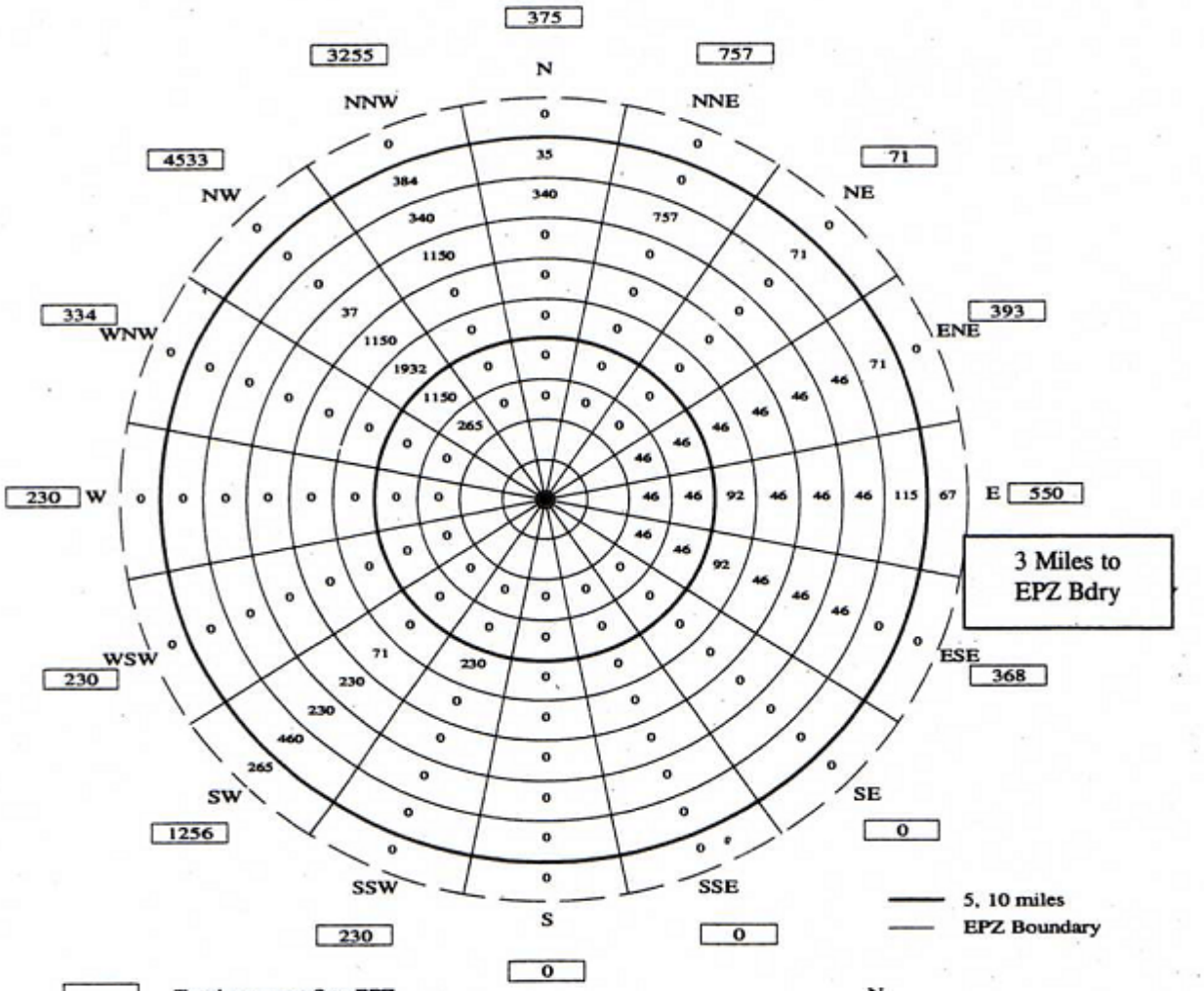


FIGURE 6-3

10-Mile Radius Area Population Distribution



Transients			
Ring Miles	Ring Subtotal	Total Miles	Cumulative Total
0-1	690	0-1	690
1-2	690	0-2	1380
2-3	932	0-3	2312
3-4	403	0-4	2715
4-5	1288	0-5	4003
5-6	2392	0-6	6395
6-7	1359	0-7	7754
7-8	1555	0-8	9309
8-9	1806	0-9	11115
9-10	1136	0-10	12251
10-EPZ	331	0-EPZ	12582

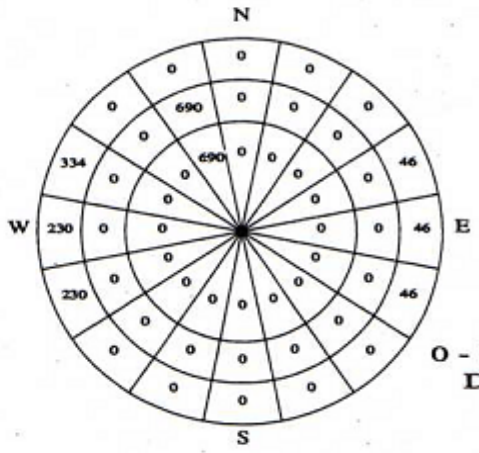


FIGURE 6-4

10-Mile Radius Area Transient Population Distribution

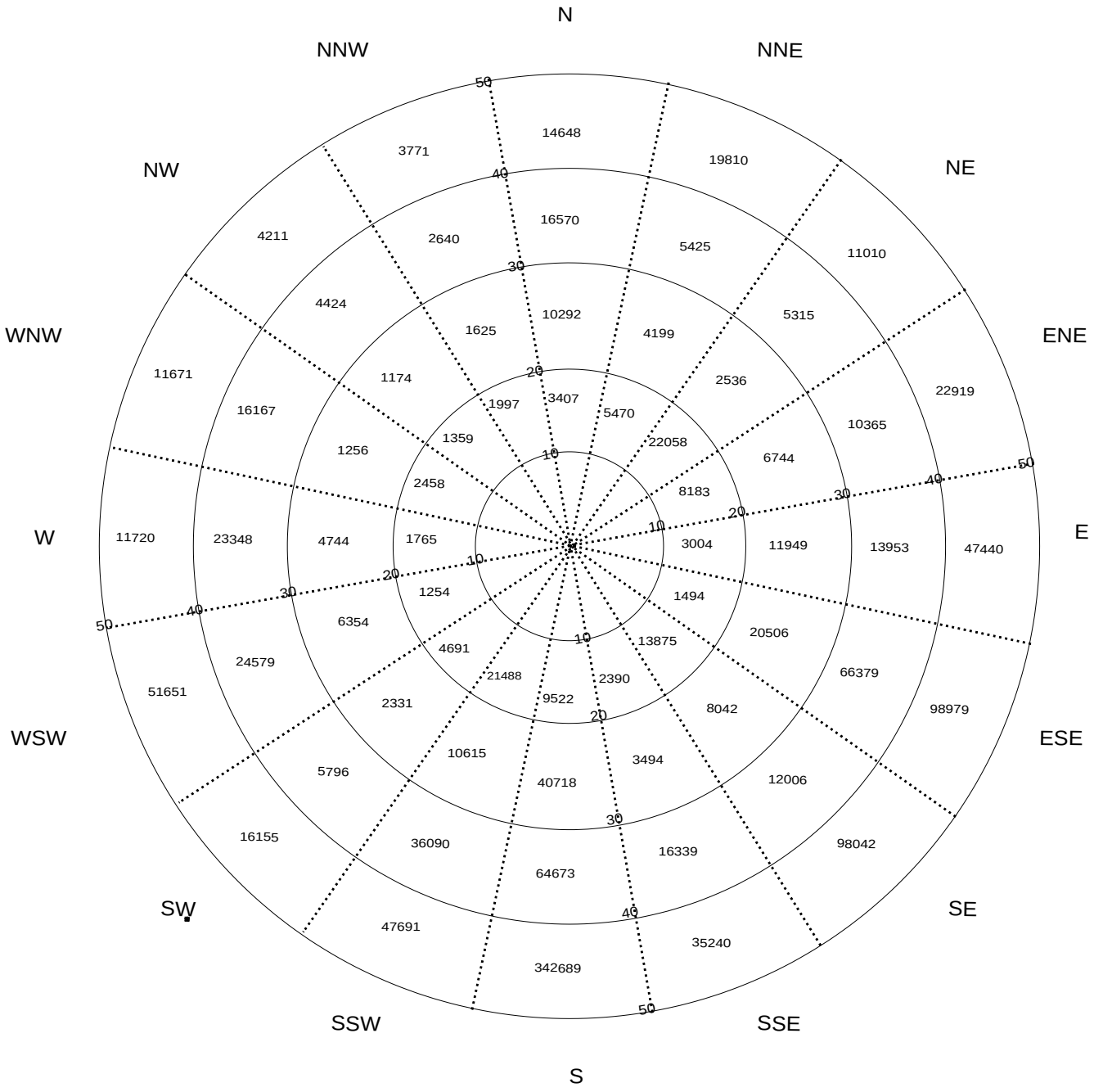


FIGURE 6-5

1990 - 50-Mile Radius Area Population Distribution

7. NOTIFICATION AND COMMUNICATIONS

Dependable and prompt notification capabilities and an extensive primary and redundant communications network are essential to effective response operations. This section describes some of the various means of notification and communication that may be used. Other means may be used as deemed necessary and appropriate.

A. Notification

This section describes the responsibilities and means of rapidly notifying state and local officials and the public within the plume exposure Emergency Planning Zone of the Vermont Yankee Nuclear Power Station. Additional details can be found in the Standard Version of the Notification Manual.

(1) Notification to State and Local Emergency Response Personnel

(a) The Vermont State Police at the State Warning Point (SWP), Rockingham PSAP, and the Alternate State Warning Point (ASWP) Derby PSAP will receive initial notification of an emergency from the Vermont Yankee Control Room via the Nuclear Alert System (NAS). Commercial telephone is used as backup. The Yankee Rowe Independent Spent Fuel Storage Installation (ISFSI) will use commercial telephone with Satellite phone as backup. Notification is verified in both cases.

i. The automated notification system will be used as the primary notification system. If it fails, the manual system will be used.

ii. If the automated system is used:

a. A variety of notification devices including pagers will be used as programmed in the system.

b. Either the SWP or the ASWP will activate it.

c. Responders will respond to the system.

iii. If the manual system is used:

a. The SWP and ASWP will work collaboratively according to the Notification Manual to notify both state and local primary responders.

b. Pagers will be activated initially and then phone calls made manually to the most likely places for those organizations from whom no one responds.

c. The responders will respond to a dispatcher at the indicated warning point.

iv. All primary pager carriers will be able to listen to a recorded message that provides all of the information received on the Vermont Yankee or Yankee Rowe notification form.

v. Both the SWP and the ASWP operate on a 24-hour basis (refer to Figure 7-1).

(b) Essential State personnel and at least two primary responders per EPZ town carry pagers. Additionally the Staging Area Director, the Reception Center Directors and the local representative of the American Red Cross carry pagers.

(c) If a local community does not respond to the page or notification by commercial telephone, the SWP in Rockingham will dispatch uniformed law enforcement officers to the community to notify local officials.

(d) State and local agencies utilize specific procedures, including telephone call out lists and local paging frequencies, to notify additional response personnel who are not notified by the SWP.

(e) After full activation (Alert or higher classification) of the State EOC and the VY Emergency Operations Facility (EOF), notification of changes in the emergency classification will generally be made by the Site Recovery Manager (at the EOF) to the State EOC over the NAS. The State Liaison at the EOF will be notified by direct contact. The EPZ towns will be notified by RERP radio from the State EOC (refer to Figure 7-2).

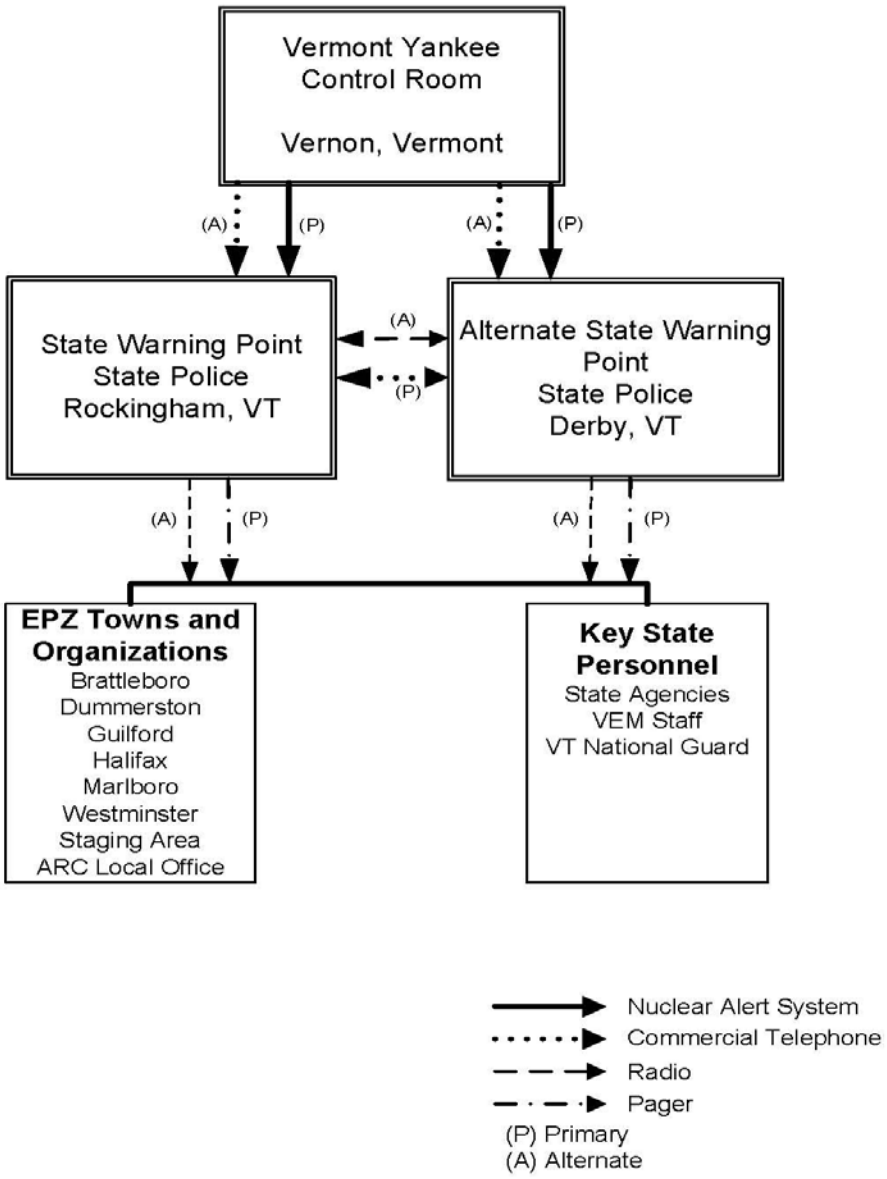


FIGURE 7-1

Initial Notification
(State EOC Not Activated)

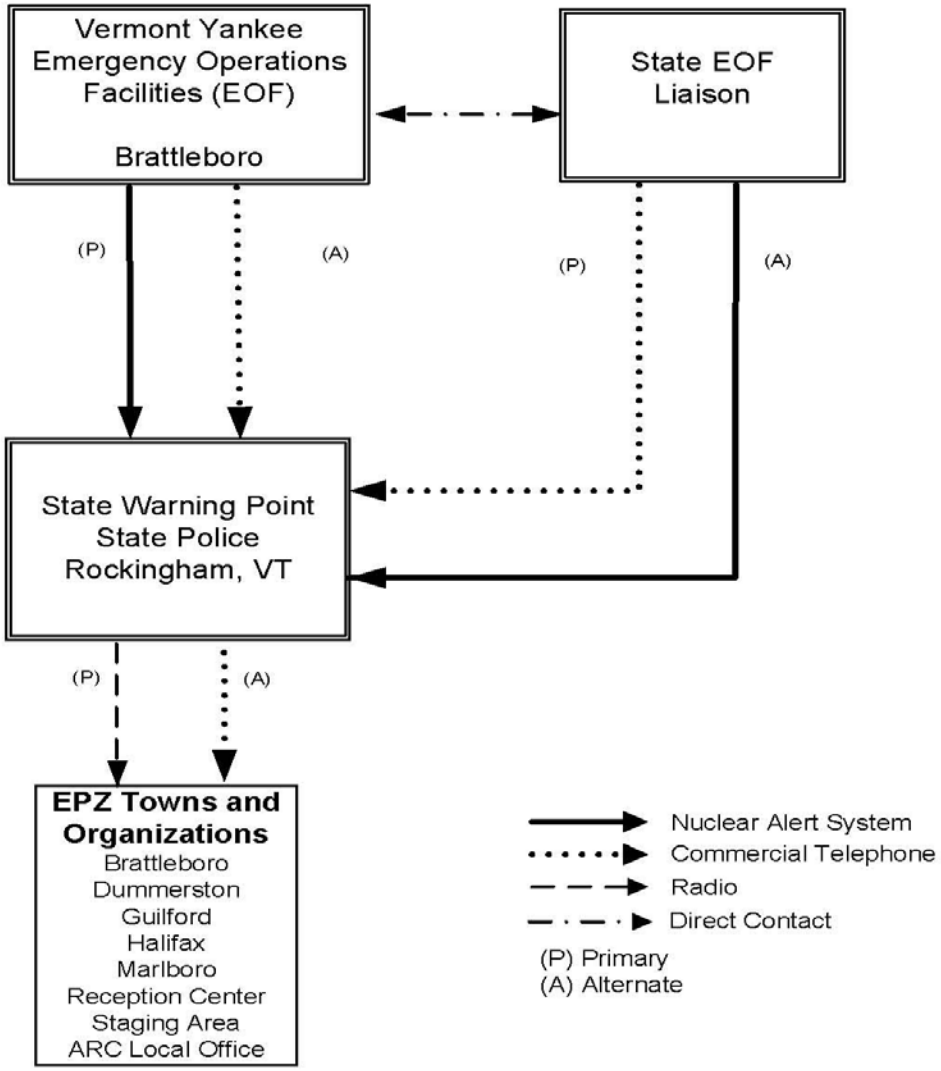


FIGURE 7-2

Notification
(State EOC Activated)

(2) Notification to the Public

(a) The Public Notification System for the Vermont Yankee Plume Exposure Pathway Emergency Planning Zone consists of weather alert radios, automated phone alerting systems, sirens and the Emergency Alert System (EAS). Weather alert radios (in all six towns), automated telephone alerting systems, and sirens (in the towns of Vernon and Brattleboro only) are used to alert and notify the public to tune their radios to local EAS stations for emergency guidance and instructions. The State has a 24-hour per day capability to activate the Public Notification System.

(b) The minimum acceptable design objectives of the system include: the capability to provide both an alert signal and an informational or instructional message to the population on an area wide basis throughout the 10-mile EPZ within 15 minutes; direct coverage of essentially 100 percent of the population within 5 miles of the site; and special arrangements to ensure 100 percent coverage within 45 minutes for the population who may not have received the initial notification within the entire plume exposure emergency planning zone.

(c) Activation of the Public Notification System will be coordinated by the Emergency Management Agencies of Vermont, Massachusetts, and New Hampshire. After the coordination activities are completed, the following will occur:

i. Vermont state officials will request the National Weather Service in Albany, New York to activate the weather alert radio transmitter on Ames Hill in Marlboro, VT which will activate tone alert radios in all EPZ towns in Vermont, New Hampshire, and Massachusetts.

ii. New Hampshire will activate the Code Red automated phone alerting system for all three states. When the Vermont E-911 system implements its automated phone alerting system, Vermont will activate that for Vermont and New Hampshire will only activate Code Red for New Hampshire and Massachusetts.

iii. Massachusetts will activate the VY siren system for all three states as the primary means. As a concurrent redundancy local officials in the towns of Vernon and Brattleboro will also activate their sirens at the designated time. As an additional redundancy, the Vermont SWP will be capable of activating the sirens in the Vermont EPZ. The sirens will activate a 3 minute continuous tone as directed by State officials. These outdoor signals advise the public to go indoors and tune to the local EAS radio station for further information.

iv. Each State is responsible for activating their own EAS system.

(d) The National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), maintains and operates a weather radio (tone alert) system throughout the United States. In Vermont, weather broadcasts are controlled through the Burlington, Vermont, NWS office and the Albany, NY, NWS office. Weather alert radios have been distributed to EPZ residents unable to receive notification by other means. Through the NWS transmitter on Ames Hill in Marlboro, VT., the NWS in Albany, NY, can activate the weather alert radios.

When EMHS contacts the NOAA weather control station in Albany, NY, and requests activation of the weather alert radios a tone will sound and a message instructing listeners to tune to their EAS station will be broadcast. WTSA AM/FM (CPSC-1) in Brattleboro also has the capability to activate the Ames Hill transmitter in the event the NWS System network between Albany and Ames Hill is inoperable.

(e) The Federal Communications Commission has approved the use of the EAS for radiological emergency response. Procedures for "Vermont Radiological Response" from the primary EAS station (CPCS-1) radio station WTSA-AM/FM in Brattleboro, Vermont have been developed by the Windham County, Vermont EAS Operational Area. WKVT-AM/FM in Brattleboro monitors and serves as backup to WTSA. Additionally, WVAY-FM, with a transmitter on Mount Snow, monitors and re-broadcasts EAS messages from WTSA.

Utilizing the SAGE “ENDEC” Encoder at the State EOC, the Information Officer will create and record EAS messages and transmit them over the dedicated EAS circuitry to the primary EAS station (WTSA AM/FM, Brattleboro, VT) in the incident area and remotely activate the EAS stations in the Windham County Operational Area. As a courtesy, when time allows, the Information Officer will contact the primary EAS station to warn them that a message is about to be transmitted. The Backup method for activation is to use the state microwave channel telephone circuit or commercial telephone line to contact WTSA and have them record and activate the message from their studio. WTSA AM/FM will broadcast public notification and guidance information authorized by the State EOC or during a fast breaking emergency, by the State Warning Point. Both the State EOC and the State Warning Point have the ENDEC encoder. Local requests for activation of the EAS must be approved and processed through the State EOC. WTSA AM/FM operates on a 24-hour, 7 days a week, basis. Despite the fact that the station is not always attended, the State EOC can activate an EAS message on a 24-hour, 7 days a week, basis.

(f) In the event of the failure of a Primary Notification System (sirens or Weather Alert Radios) each EPZ town has a route alerting system in place.

(g) State and local personnel will be dispatched to parks and recreation areas to notify transient populations. Provisions for notifying "special needs" individuals and special institutions are addressed in the local plans.

(h) During a fast breaking situation when initial notification from the plant includes a protective action recommendation for the public under a **General Emergency**, public notification is made in accordance with the Notification Manual procedure. The SWP will contact the State Fast Breaker Response Group consisting of the Director of Emergency Management, the Deputy Directors, the EMHS Duty Officer, and others for verification that the situation is in fact a General Emergency Fast-Breaker. If these individuals are not available, the Dispatcher will proceed with the “Fast-Breaker” procedure. The SWP will also request activation of the EPZ town sirens and will activate the Windham County EAS Station WTSA. These actions will be taken prior to other State and local notifications.

B. Communications

Reliable communications among principal organizations are necessary for coordinated emergency response. A number of primary and backup communication systems are available. The following section describes the various means of communications available to the response organization.

(1) Communication Systems

(a) Nuclear Alert System. The Nuclear Alert System (NAS) is a party selectable, limited access system from AT&T and Verizon used for initial notification from the Control Room to the States (Vermont, New Hampshire and Massachusetts) via the State Warning Points. This dedicated communications system also links essential emergency response facilities, including the three state EOCs and the Vermont Yankee EOF and is used for interstate coordination and administrative exchange of information. In Vermont there are additional NAS telephones at the State Warning Point (Rockingham), the Alternate State Warning Point (Derby, and at the Staging Area Office in Dummerston.

(b) Commercial Telephone. Commercial telephone is the primary communications system for State response personnel. Both the State EOC and the Staging Area have been wired with additional lines to provide response agencies with private lines and numbers to communicate with field operations and other response organizations. Facsimile machines also link the utility, State EOC, Staging Area, and the local EPZ towns.

(c) Emergency Management Radio, “45.52 MHZ”. Emergency Management Radio provides the State EOC with radio communications with emergency management bases located at the Staging Area, the Vermont Yankee EOF, and the primary (CPCS-1) Windham County Operational Area EAS station, WTSA AM/FM. Mobile units are provided for Emergency Management (State and local) vehicles. Base stations have been installed in all six (6) town EOCs, the Staging Area, the Vermont liaison at the VY Emergency Operations Facility (EOF), and the Reception Center.

(d) Vermont National Guard Radio. The Vermont National Guard base radio will be made available at the State EOC and Staging Area. This radio provides National Guard personnel with dedicated radio communications with units in the field. A permanent antenna has been installed at the State EOC.

(e) Civil Air Patrol Radio. Civil Air Patrol (CAP) radio communications are available at the State EOC. Mobile and portable units are available to provide additional net locations that can operate interstate, intrastate, and ground/air.

(f) Radio Amateur Civilian Emergency Services (RACES): RACES volunteer radio operators provide a statewide backup communications network. RACES will provide equipment and operators at various locations. Primary assignments include the six EPZ towns, the Bellows Falls Union High School Reception Center (primarily for the American Red Cross), the Staging Area Office, and other field locations as requested. Additional RACES sites include all Vermont hospitals, Vermont Department of Health locations and Vermont National Guard Joint Operations Center (JOC).

(g) Emergency Medical Service Radio System, “150 MHZ”. The Emergency Medical Service (EMS) Radio System provides communications between hospitals and mobile units in ambulances.

(h) Vermont State Police Radio Net “450 MHZ”. The Vermont State Police radio net provides backup radio capability between the State EOC and the Staging Area, as well as interface with all police services.

(i) Agency of Transportation (AOT) Radio Net, “150 MHZ”. Transportation Radio provides backup radio communications between the State EOC, Staging Area, and the Agency of Transportation (Capitol District, Montpelier, Vermont) dispatcher and all agency facilities and mobiles.

(2) Communications with Local Governments

The RERP Radio System"45.52 MHZ" is the primary means of communications between the EPZ towns and the State EOC. Local governments can also use the system to communicate with each other.

Commercial telephone is the primary backup system for local governments. Local Law Enforcement radio communications provide a backup radio link with the state where available. Emergency Management Radio provides an additional radio link in Vernon and Brattleboro.

A new disaster management system known as "DisasterLAN" has been implemented in Vermont and is in all EPZ facilities. Additionally the Vermont EOC has access to a similar program known as "Web EOC" used by Vermont Yankee, New Hampshire and Massachusetts.

(3) Communication with Other States

Response activities require substantial coordination with the Commonwealth of Massachusetts and State of New Hampshire. The primary means of communication among the three states is the Nuclear Alert System (NAS). Commercial telephone is also utilized.
Additionally the States of New Hampshire and Vermont and the National Weather Service Offices in Albany, NY and Burlington, VT can communicate on low band radio (45.520).

(4) Communications with the Federal Government

The primary means of communication with federal agencies is through FEMA. The following is a description of the various federal communication systems that can be used in the response effort.

(a) Federal National Message System. The Federal National Message System (FNAMS) is a dial up dedicated message system capable of sending and receiving messages between all state emergency management agencies and FEMA.

(b) Federal National Alert Radio System. The Federal National Radio System (FNARS) provides high frequency voice and data communications with FEMA.

(c) National Warning System. The National Warning System (NAWAS) is dedicated nationwide early warning system. It is used to broadcast information to each of the 50 states, U.S. territories and possessions, and selected military bases. The NAWAS uses land lines as well as microwave channels. It provides a redundant link for the State with the National

Weather Service.

(d) STE. The STE is a secure voice telephone that can be used to communicate classified traffic to the Secret level. This system is available at the State EOCs, the FEMA Federal Regional Centers, and the Vermont Fusion Center.

(e) Video conferencing in either a secure or non-secure mode is available in the Public Safety Department conference room.

(f) The Federal Emergency Management Agency facility in Maynard, MA. has been provided a low band radio which will allow them another means of communication with the State of Vermont.

(5) Communications with Field Personnel

(a) Radiological Plume Tracking Teams Personnel. HAZMAT Team personnel working in the field may utilize satellite telephone units for communications capability. They are also provided with mobile radios on UHF and cell phones. Other relevant methods of communication may be employed if deemed necessary and appropriate.

(b) Radiological Post Plume Sampling Teams are provided cellular telephones and mobile radios which enable them to communicate with the State EOC and the Environmental Sampling Team Director. Other relevant methods of communication may be employed if deemed necessary and appropriate.

(c) The Vermont Department of Health Laboratory in Burlington, VT, will communicate with the State EOC via commercial telephone or other relevant method if deemed necessary and appropriate.

(d) Police. The Vermont State Police serving in the field utilize the Law Enforcement Radio System as a primary link with State Police stations, the State EOC, and the Staging Area. The system also provides radio communications throughout Vermont with County Sheriff and local police organizations. The radio system is also used between the Police Services Coordinators at the State EOC and Staging Area and the Windham County Sheriff mobile emergency management units. The Windham County Sheriff Radio System provides an additional frequency.

Police personnel also utilize the State Police Intercom System between station-to-station and other State agency locations. Commercial telephone provides additional land-line links. Other relevant methods of communication may be employed if deemed necessary and appropriate.

(e) Transportation. Agency of Transportation units assisting in evacuation operations utilize the Transportation Radio System as a primary means of communications. Transportation Agency field personnel supporting traffic and access control functions utilize agency mobiles to communicate with the State EOC and the Staging Area, and monitor progress of other transportation units. Other relevant methods of communication may be employed if deemed necessary and appropriate.

(f) The Department of Fish and Wildlife Radio Net, 150 MHZ. Fish and Wildlife wardens have an active role in alerting people in the EPZ that are on waterways and remote areas. Additionally, the Radiological Sampling Teams may also use the radio net when deployed.

(g) Reception Centers. Primary communication from the Bellows Falls Union High School Reception Center in Westminster, Vermont to the State EOC is via the RERP radio. Commercial telephone is used as backup. Additional communications to the Reception Center are available from the Amateur Radio Emergency Services who may be dispatched by the State EOC. Other relevant methods of communication may be employed if deemed necessary and appropriate.

Local radio communications are used among field personnel supporting reception center operations (i.e., traffic personnel, radiological monitoring and decontamination personnel, and security personnel). This equipment includes various base station, mobile, and portable radios available through the Westminster Fire and Highway Departments.

(6) Fixed and Mobile Medical Communications

The Emergency Medical Service Radio System is utilized for communications between ambulance and hospital personnel.

C. System Testing

The various systems used for notification and communications must be tested on a regular basis to identify problem areas and minimize the possibility of malfunctions during an emergency. The various components are tested as follows:

System Components	Frequency of Test
1. Nuclear Alert System, WESCOM SS-4A	Monthly as Scheduled by the Utility and periodically as initiated by the SWP
2. Notification System	EPZ, VEM Staff and HazMat Team weekly; State monthly
3. NOAA Weather Alert Radio	Weekly, Wednesdays at 10:00 am - Noon
4. RERP Radio Local Interface	Monthly, as Scheduled by EMHS
5. EAS	As Required by FCC
6. NAWAS	Once per 8-Hour Shift, Daily
7. Law Enforcement Radio System	Daily Usage
8. Transportation Radio System	Daily Usage
9. Emergency Management Radio System	Daily Usage
10. RERP Portable Units	Regular Usage
11. FNARS	Daily Usage During Normal Work Week
12. RACES	As Scheduled by Amateur Radio Emergency Services
13. CAP Radio Communications	As Scheduled by Civil Air Patrol
14. Vermont National Guard Radio System	As Regulated
15. Commercial telephone to the VY control room	Weekly, initiated by either the SWP or the ASWP
16. VT HAZMAT Response Team Radios	Regular Usage
17. Satellite Telephones	Monthly as Scheduled
18. Fish & Wildlife Radio Net work	Daily Usage

D. Communications Drills

Monthly drills are conducted in conjunction with the pager and radio interface tests.

8. RESPONSE MANAGEMENT

A. Emergency Response Organization

Note: This section (Section 8) has been designed to be used as an operational manual for Response Management personnel. It is a detachable portion of the Vermont Radiological Emergency Response Plan.

Response management encompasses the activation of personnel and facilities, the assignment of responsibilities, and the operations performed by Vermont State personnel in response to a radiological emergency at the Vermont Yankee Nuclear Power Station. It requires coordination among utility, state, local, federal, and private agencies and organizations participating in the response and response support effort. This section describes the emergency organization that would respond to an emergency at Vermont Yankee. The major responsibilities of each organization are also discussed and Table 8-1 outlines the matrix for the state EOC emergency response organization responsibilities.

(1) Concept of Operations

Effective management of the off-site response to a radiological emergency at Vermont Yankee requires an extensive emergency response organization that involves state, local, federal, and private organizations. This organization utilizes the specialized skills of each individual and provides staff assignments which may cross agency or organizational lines. The role of each organization comprising the state emergency management structure is described functionally aligned consistent with the State Emergency Operations Plan (SEOP).

The SEOC Manager, acting directly under the Governor, assumes command and control of the off-site response. The SEOC Manager will be supported at the EOC by qualified representatives from the following State Support Functions (SSFs)/agencies which would respond:

(a) Governor's Office

(b) SSF 1 (Transportation) and 3 (Public Works & Engineering) – Agency of Transportation with supporting agencies as needed.

(c) SSF 2 (Communications) – Department of Information and Innovation and Department of Public Safety, Criminal Justice Services with supporting agencies as needed.

(d) SSF 4 (Firefighting) – Department of Forest, Parks and Recreation and Department of Public Safety, Division of Fire Safety and supporting

agencies as needed.

(e) SSF 5 (Emergency Management, Recovery and Mitigation) – Department of Public Safety, Division of Division of Emergency Management and Homeland Security and supporting agencies as needed.

(f) SSF 6 (Mass Care, Housing, Emergency Assistance and Human Services) – Agency of Human Services with the American Red Cross and other supporting agencies as needed.

(g) SSF 7 (Resource Support) – Department of Buildings and General Services and Commission on National and Community Services with supporting agencies as needed.

(h) SSF 8 (Health and Medical Services) – Department of Health with supporting agencies as needed.

(i) SSF 9 (Search and Rescue) – Department of Public Safety, Vermont State Police with supporting agencies as needed.

(j) SSF 10 (Hazardous Materials) – Department of Public Safety, Division of Fire Safety with supporting agencies as needed.

(k) SSF 11 (Agriculture and Natural Resources) – Agency of Agriculture, Food and Markets and Agency of Natural Resources with supporting agencies as needed.

(l) SSF 12 (Energy) – Department of Public Service with supporting agencies as needed.

(m) SSF 13 (Law Enforcement) – Department of Public Safety, Vermont State Police with supporting agencies as needed.

(n) SSF 14 (Public Information) – Department of Public Safety, Division of Emergency Management and Homeland Security

(o) Military Support – Vermont National Guard with supporting military components as needed.

(p) Other Amateur Civilian Emergency Services

(q) Other agencies and organizations as necessary

Qualified representatives will be assigned specific responsibilities to carry out mission assignments. The qualified representatives are authorized to serve as agency spokespersons.

TABLE 8-1

State EOC Emergency Response Organization Responsibilities Matrix

P = PRIMARY RESPONSIBILITY S = SUPPORT RESPONSIBILITY

	Command and Control	Alerting and Notification	Communi cations	Public Infor-mation	Accident Assess-ment	Public Health and Sanitation	Social Services	Fire and Rescue[1]	Traffic & Access Control	EMS	Radiation Exposure Control	Law Enforce-ment	Transpor-tation	Protective Response
SEOC Manager	P	P	S	S	S	S	S	S	S	S	S	S	S	P
Operations Sect Chief	S	S	S	S										S
Public Information Coord		S		P										S
PIO Deputy Coord		S		S										S
EAS Writer		S		P										S
Public Service Coord (SSF 12 Lead)					P	S								P
Nuclear Engineer					P	S								S
Military Support								S	P			S	P	S
Natural Resources Coordinator (SSF 11 Co-Lead)					S	S						S		P
Environmental Coordinator					S	S						S		P
Health Service Coord (SSF 8 Lead)				S	P	P		S		P	P			P

	Command and Control	Alerting and Notification	Communi cations	Public Infor-mation	Accident Assess-ment	Public Health and Sanitation	Social Services	Fire and Rescue[1]	Traffic & Access Control	EMS	Radiation Exposure Control	Law Enforce-ment	Transpor-tation	Protective Response
Radiological Health Advisor				S	P	P					P			P
Medical Service Coordinator						S		S		P				S
Dose Assessment					P									
Police Service Coord (SSF 13 Lead)		S	S					S	P			P	S	P
Transportation Coord (SSF 1 Lead)		S						S	S				P	S
Communications Coordinator		S	P											S
Public Notification Technician		P	S	S										S
Human Service Coord (SSF 6 Lead)						S	P			S				S
Agricultural Coordinator				S	S	S								P
Civil Air Wing Military Support			S										S	S
Disaster Liaison (American Red Cross)						S	P							S
RACES Coordinator			P											

(1) Fire and rescue is primarily a local function
Supplemental resources, if needed, are coordinated through mutual aid networks, the Staging Area, and State EOC
(2) The Governor is responsible for ensuring that all state resources are available and utilized in the response
(3) The Commissioner of Public Safety may serve as an advisor to the Governor

Operational procedures are prepared and maintained by each assigned State agency. The Director of each organization with an identified emergency response role must maintain an adequate emergency response capability by ensuring that the organization can be notified and mobilized on a 24-hour basis. Each organization is also capable of 24-hour staffing for the duration of the emergency.

The State organization will interface with the utility, local, federal, and private organizations. The interrelationship of these organizations is shown in Figure 8-1.

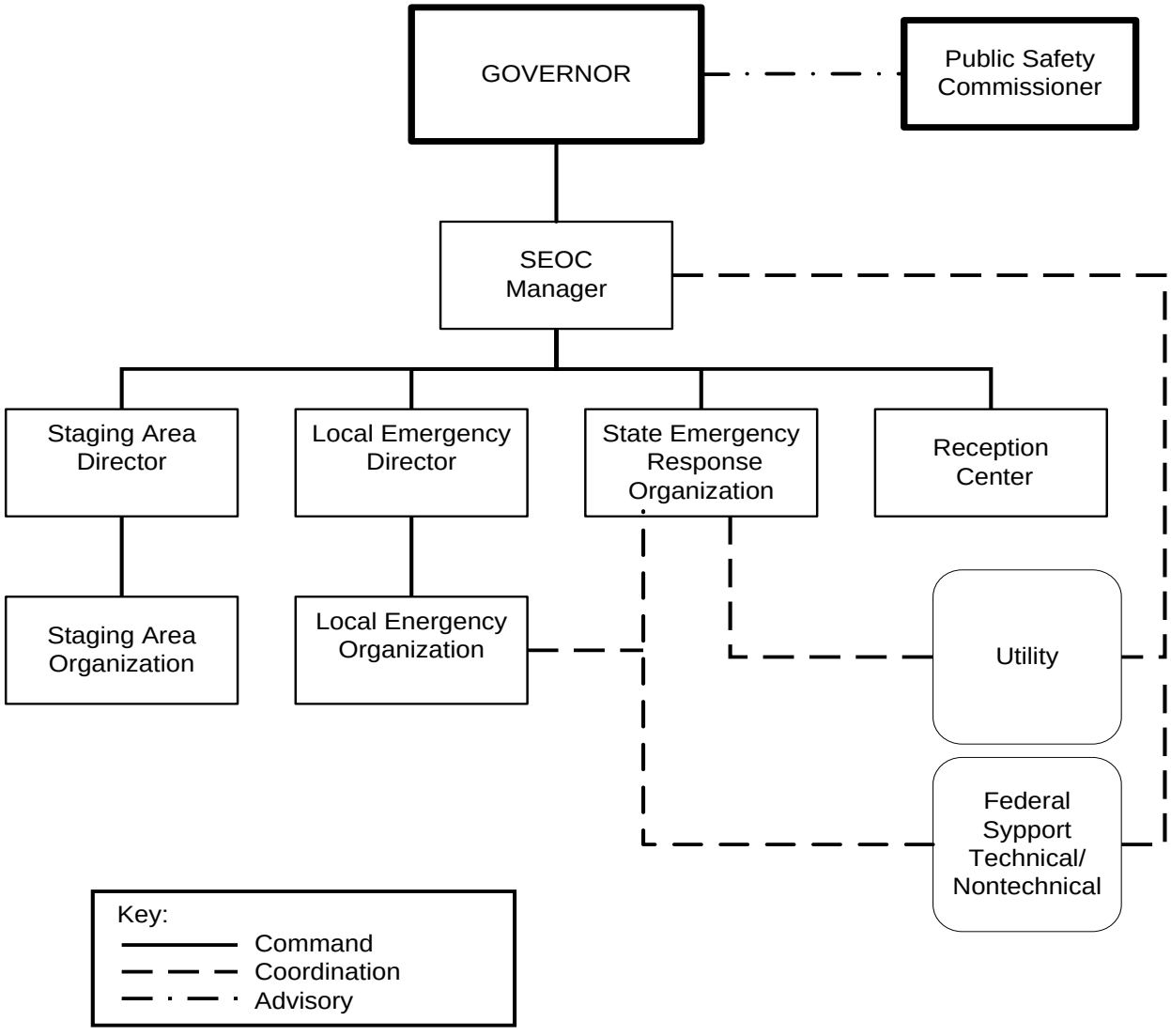


FIGURE 8-1
Emergency Response Organization Interface

(2) State Government Command and Control

This section identifies the State agencies that comprise the State Emergency Response Organization and the major responsibilities of their essential personnel staffing the State Emergency Operations Center (SEOC). Unlike incident management for most other emergencies, in which local incident commanders make decisions about protective or precautionary actions, many of those decisions are made at the state level in coordination with the local jurisdictions in the Emergency Planning Zone (EPZ) and the states of New Hampshire and Massachusetts. The State Emergency Operations Center (SEOC) essential personnel staffing as the Incident Coordination Team (ICS Organization) and the State Emergency Response Organization are shown in Figures 8-2 and 8-3 respectively.

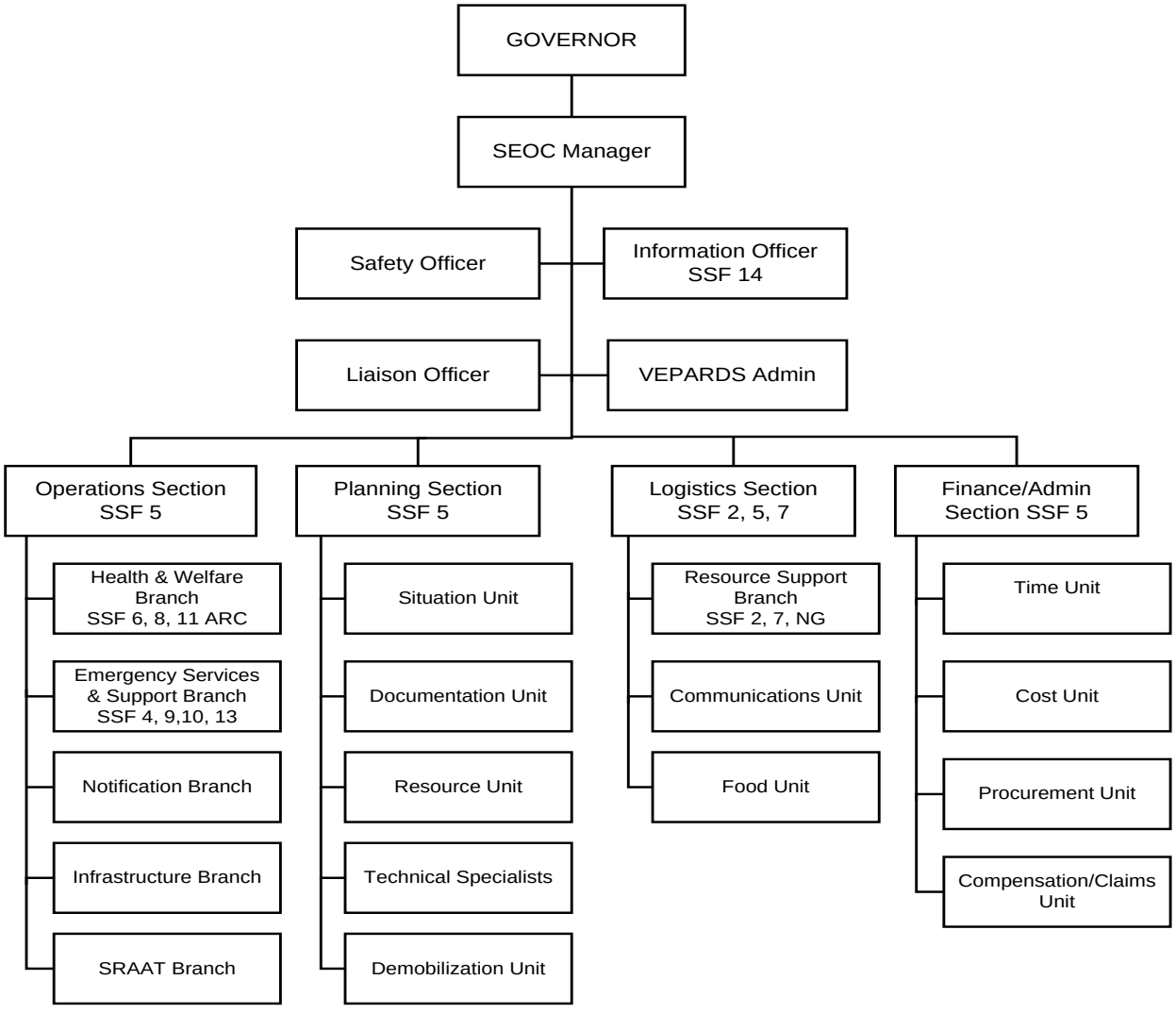


FIGURE 8-2
State of Vermont EOC Incident Coordination Team
ICS Organization

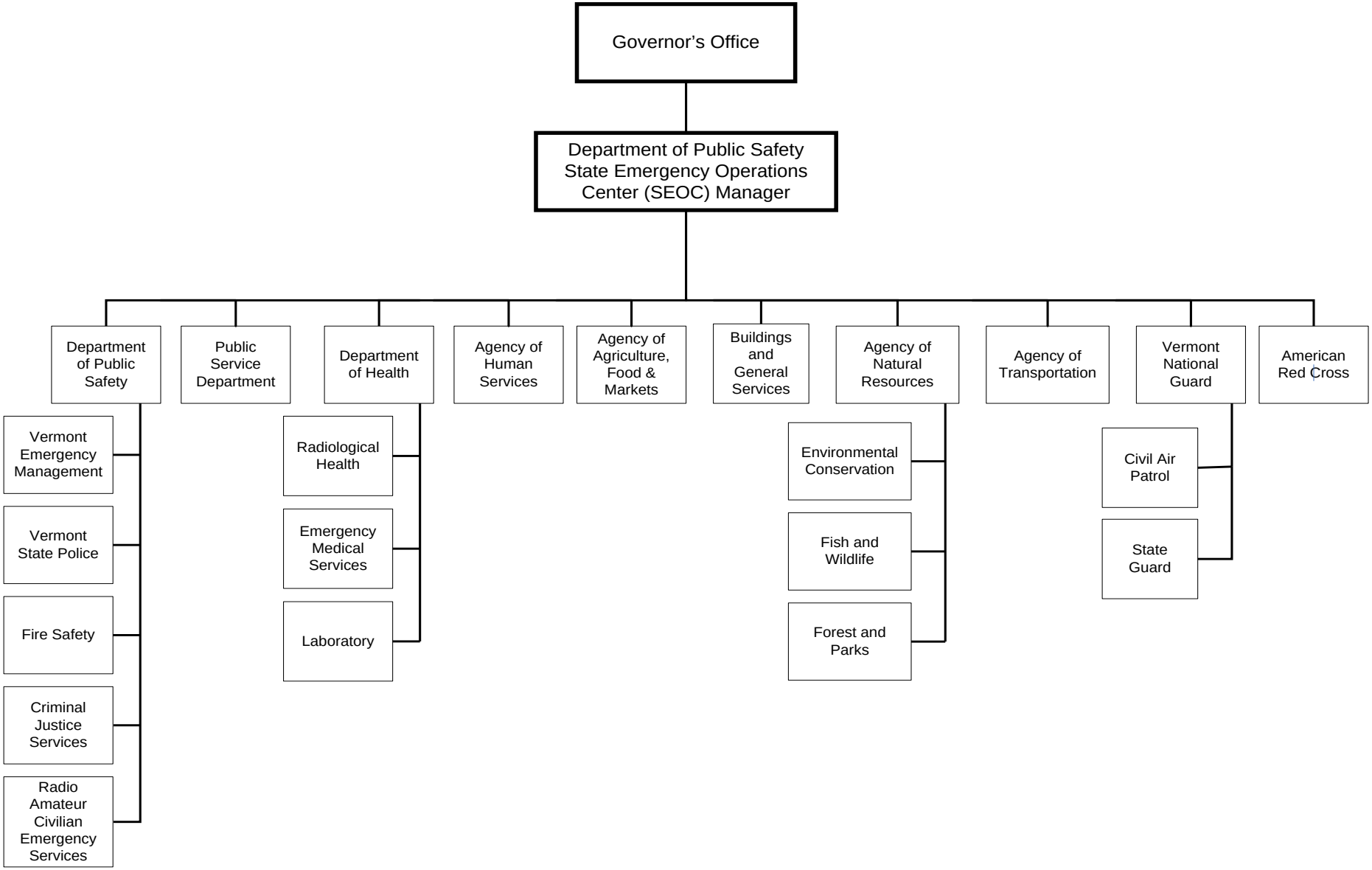


FIGURE 8-3
State Emergency Response Organization

(a) Governor's Office

i. Governor of Vermont - The Governor is responsible for:

a. Ensuring that all available state governmental resources are available and utilized in response to a radiological emergency.

b. Declaring a State of Emergency if conditions warrant.

c. Authorizing protective actions for the public based on recommendations from the decision-makers group at the State EOC.

d. Approving information released to the public

e. Coordination with other states and the Federal Government at an executive level.

f. Protective actions will be authorized by the Governor's Office based on recommendations from the decision-makers group at the State EOC. Farmers and food processing facilities within the Ingestion Pathway Zone will be advised by Emergency Alert System (EAS) messages and/or news advisories of protective actions concerning the prevention or mitigation of radioactive contamination to food products.

ii. Lieutenant Governor - As the first interim successor to the Governor, the Lieutenant Governor is responsible for assuming the duties of the Governor when the Governor is not available, or as directed by the Governor.

iii. Commissioner of Public Safety - The Commissioner, Department of Public Safety, may serve as an advisor to the Governor during emergency response operations.

(b) SSF 5 (Emergency Management, Recovery & Mitigation)

i. The Commissioner of Public Safety, or designee, acts as the state coordinating officer for emergency and disaster assistance.

ii. Vermont Division Emergency Management and Homeland Security

a. SEOC Manager - The Director of Vermont Division Emergency Management and Homeland Security, or designee, assumes the duties of SEOC Manager unless otherwise specified by the Governor and is responsible for:

1) Directing all state operational activities under the delegated authority of the Governor.

2) Activating the emergency response organization and facilities.

3) Coordinating the local, state, and federal response at an operational level.

4) Ensuring the continuity of emergency operations and resources on a 24-hour basis throughout the incident period.

5) Determining and recommending protective actions to the Governor in conjunction with the Health Services Coordinator and Public Service Coordinator.

6) Issuing protective actions to local officials upon the order of the Governor.

7) Coordinating with the Commonwealth of Massachusetts and the State of New Hampshire on response activities, including Public Notification System activation and protective action recommendations and implementation.

8) Ensuring notification of the public through the Public Notification System.

9) Managing relocation, re-entry, and return activities.

b. EOC Staff - the SEOC Manager is supported by an EOC Staff based on the Incident Command System (ICS) and multi-agency coordination system guidelines. This staff consists of full-time Department of Public Safety employees and personnel from various state agencies and organizations who are trained to respond to any type of hazard. The primary members of this staff are shown in Figure 8-2.

This staff provides the following support:

1) Providing primary support to the SEOC Manager in conducting EOC operations.

2) Assisting the SEOC Manager in coordinating Federal, State, local and private resources in responding to the situation in the most effective way.

3) Ensuring that adequate communications, displays, supplies, and space are available for state agency personnel to carry out their emergency operations.

4) Overseeing all administrative functions including assignment and 24-hour staffing of Department of Public Safety personnel.

5) Coordinating with other state agencies regarding 24-hour staffing of the State EOC.

6) Assisting in the development of news releases.

7) Providing support to the Information Officer.

8) Preparing EAS messages for release to the public.

9) Reviewing requests from EPZ towns for EAS messages.

10) Planning and implementing protective actions and recovery operations including:

a) Restricted zone(s) management

b) Relocation

c) Re-entry

d) Return

c. Primary Staff Positions

1) Liaison Officer - The Liaison Officer is responsible for:

a) Ensuring that State Agency Representatives report to the State EOC and assisting them in getting oriented.

b) Developing and maintaining contact with Federal response agencies and assisting them in getting established in Vermont so they may provide resources for the emergency response effort.

2) Information Officer - The Information Officer is responsible for:

a) Directing the preparation and release of accurate information to the news media and the public through various means in a timely manner.

b) Informing the Governor's Press Secretary of the situation and proposed releases of information.

c) Preparing EAS messages for release to the public.

d) Reviewing requests from the EPZ towns for EAS messages.

e) Coordinating with state personnel at the Joint Information Center regarding the release of information to the news media and the public.

f) Coordinating Vermont incident information with other involved states, responding Federal agencies, and the utility. This is assisted by the assignment of a Vermont Joint Information Center (JIC) Team to the Vermont Yankee News Media Center at the **Alert** or higher emergency classification level. Two-way communications between the Information Officer staff and the JIC Team by telephone and fax is maintained.

3) Operations Section Chief - The Operations Section Chief is responsible for:

a) Providing primary support to the SEOC Manager in conducting EOC operations.

b) Ensures that notifications are made to Federal, State, Local and Private Organizations as needed.

c) Coordinates the actions of the state agencies in the EOC.

4) Planning Section Chief - The Planning Section Chief is responsible for:

a) Conducts the planning meetings as needed and develops a periodic Incident Action Plan.

b) Provides displays and reports summarizing information about the Emergency to the EOC staff and supporting state agencies, to include a periodic situation report.

c) Maintains a list of resources being used and available to the emergency.

d) Maintains a central log of major events.

e) Maintains documentation for the emergency.

f) Prepares a demobilization plan for the emergency.

5) Logistics Section Chief - The Logistics Section Chief is responsible for:

a) Provision of:
i) Food for the EOC Staff.
ii) Security for the Department Building.
iii) Communications Support.
iv) Other supplies and equipment.

b) Coordination with State agency Representatives on logistical issues.

6) Radiological Plume Tracking Teams Director (VT HAZMAT Team)

a) Receives tasking from the Radiological Health Advisor or designee.

b) Coordinates plume tracking activities with New Hampshire, Massachusetts, and Vermont Yankee at the Emergency Operations Facility (EOF).

c) Directs Vermont Plume Tracking Teams in accomplishing radiological tasks.

7) Radiological Sampling Teams Director

a) Receives tasking from the Radiological Health Advisor or designee.

b) Coordinates sampling team=s activities with New Hampshire, Massachusetts, New York, and the Federal Radiological Monitoring and Assessment Center (FRMAC).

c) Directs Vermont Radiological Sampling Teams in accomplishing radiological tasks.

8) The Vermont Hazardous Materials Response Team.

a) Staff the Radiological Plume Tracking Team (see Special Teams).

b) Performs other duties as assigned.

iii. SSF 13 (Law Enforcement)

a. SSF 13 Qualified Representative – The SSF13 Qualified Representative is the Director of Vermont State Police or designated qualified representative responsible for:

1) Identifying State Access Control Points and Traffic Control Points (ACPs/TCPs).

2) Developing specific orders regarding the operation of ACPs/TCPs.

3) Ensuring the assignment of police and support personnel, including relief shifts.

4) Assigning Vermont State Police units to State borders in coordination with Massachusetts and New Hampshire.

5) Assisting local police organizations in the operation of local ACPs/TCPs.

6) Providing traffic flow information to the Reception Center.

7) Transporting emergency response personnel to duty stations.

8) Providing law enforcement support to suppress looting and other criminal activities following an evacuation.

9) Requesting assistance from the National Guard in coordination with the Military Coordinator.

10) Coordinating security issues.

11) Determining if there is a possible terrorist component to the incident.

12) Coordinating with State and Federal Homeland Security and other law enforcement agencies.

iv. Department of Public Safety - Criminal Justice Services

a. Communications Coordinator - The Communications Coordinator is the Department of Public Safety Communications Officer or designated qualified representative responsible for:

1) Establishing emergency radio dispatch.

2) Ensuring 24 hour per day staffing of communications links.

3) Monitoring and maintaining all state communications systems in operation.

4) Identifying equipment malfunctions and dispatching appropriate technicians and necessary repair parts to problem locations.

5) Assisting in requesting activation of the NOAA Weather Alert Radio System and EAS, Windham County, or other operational areas (unless performed by the SWP during a fast breaking GENERAL EMERGENCY).

(c) SSF 8 (Health and Medical Services)

i. The Vermont Department of Health provides for laboratory analysis of air, water, and other environmental samples for radionuclide content at the State of Vermont Department of Health or other relevant laboratory as necessary and appropriate.

ii. The Vermont Department of Health, as well as other state entities, provides trained personnel to serve on the Radiological Sampling Teams.

iii. SSF 8 Qualified Representative – The SSF 8 Qualified Representative is the Vermont Commissioner of Health or designated qualified representative responsible for:

a. Coordinating health related decisions including ingestion pathway decisions for Vermont with accident assessment personnel from state agencies, other affected states, federal agencies, and the utility. This coordination will ensure consistency of action among the states and will ensure effective utilization of federal and interstate assistance.

b. Formulating protective action recommendations in conjunction with the SEOC Manager, Radiological Health Advisor, and Public Service Coordinator (SSF 12 Lead) for approval by the Governor.

c. Authorizing the use and administration of potassium iodide (KI).

d. Coordinating with the Health Directors of Massachusetts and New Hampshire.

e. Providing for laboratory analysis of air, water, soil, vegetation, milk, and other samples as appropriate.

f. Authorizing emergency workers to exceed the protective action guides when appropriate.

g. Ensuring the provision of Emergency Medical Services.

h. Formulating protective actions for the ingestion pathway in conjunction with the Radiological Health Advisor.

iv. Radiological Health Advisor - The Radiological Health Advisor is the designated qualified representative responsible for:

a. Serving as the essential technical advisor to the Health Services Coordinator (SSF 8 Lead).

b. Provides tasking to Radiological Plume Tracking Teams and Radiological Sampling Teams.

c. Establishing and implementing radiation exposure control measures for emergency workers and the general public.

d. Providing guidance to monitoring and decontamination personnel at decontamination stations and the Reception Center.

e. Reviews the progress of field monitoring teams including the exposure level reports.

f. Develops a field monitoring and sampling plan with assistance from the Dose Assessment Team.

g. Develops a request for federal assistance for the Advance Party meeting.

v. Medical Services Coordinator - The Medical Services Coordinator is the Emergency Medical Services (EMS) Director or designated qualified representative responsible for:

a. Coordinating with local EMS agencies regarding the provision of emergency medical services.

b. Providing assistance in meeting the transportation and medical needs of special facilities in preparing for and implementing evacuation.

c. Developing a statewide resource pool of ambulances and vehicles to support specialized medical transportation needs.

d. Coordinating with local EMS agencies and medical facilities for the transportation and care of contaminated injured individuals.

e. Coordinating with the Patient Coordination Unit at the State Health Operation Center (HOC) to ensure that the provision of ambulances for the evacuation of health care facilities is coordinated with the plan of host facilities.

vi. Dose Assessment Team - The Dose Assessment Team members are the qualified representatives responsible for:

a. Using computer or other appropriate models to estimate plume direction and deposition footprint.

b. Using relevant and appropriate meteorological, plant and environmental sample data to perform continual off-site dose projections for all phases of an incident.

c. Providing technical assistance to the Radiological Health Advisor and/or Health Services Coordinator or designee.

d. Assisting in the development of Radiological Plume Tracking Team and/or Radiological Sampling Team field sampling plans if requested.

e. Assisting in communications with the Radiological Tracking Team Director and Radiological Sampling Team Director If requested.

f. Interacting with GIS personnel in the development of electronic maps depicting estimated plume path, areas of deposition, identification of potential field team sample locations, locations of particular interest such as dairy farms and other relevant and appropriate information.

vii. Sample analysis will be performed at the Vermont Department of Health Laboratory in accordance with the laboratory procedures contained in Attachment 1 and other State and Federal laboratories as needed.

(d) SSF 12 (Energy)

i. SSF 12 Qualified Representative – The SSF 12 Qualified Representative is the Commissioner of Public Service or designated qualified representative responsible for:

a. Coordinating with plant personnel regarding plant conditions and the on-site response effort.

b. Advising the SEOC Manager and SSF 8 Qualified Representative of actual or projected plant conditions.

c. Participating in the protective action decision-making process with the SSF 8 Qualified Representative and SEOC Manager.

d. Providing contact and liaison with the Nuclear Regulatory Commission.

e. ERDS (Emergency Response Data System) analysis.

ii. Nuclear Engineer - The Nuclear Engineer is the Department of Public Service staff person with said title or designated qualified representative. Duties may be carried out at the licensee's Emergency Operations Facility (EOF) or the State EOC. The Nuclear Engineer is responsible for:

a. Monitoring and evaluating the physical conditions at Vermont Yankee.

b. In conjunction with the Radiological Health Advisor evaluating the nature, extent, and potential danger to the public resulting from the emergency.

c. Monitoring the efforts of plant personnel to return the facility to a stable and safe condition.

d. Communicating current status and significant changes in plant conditions to the Public Service Coordinator at the State EOC.

(e) SSF 6 (Mass Care, Housing, Emergency Assistance and Human Services)

i. Agency of Human Services – The SSF 6 Qualified Representative is the Secretary of Human Services or designated qualified representative responsible for:

a. Confirming activation of the Bellows Falls Union High School Reception Center.

b. Assigning state personnel to the reception center and congregate (mass) care shelter facilities as requested by the American Red Cross.

c. Relaying pertinent information from the State EOC to the Reception

Center Director.

d. Receiving progress reports and requests for assistance from the Reception Center Director.

e. Consulting with the American Red Cross regarding additional relief services and state organizations that might be needed for the provision of meals, bedding, and basic sanitation articles for evacuees at congregate (mass) care facilities.

ii. American Red Cross (ARC)

a. The American Red Cross is responsible for providing food and shelter for persons who have evacuated. The Red Cross will mobilize and coordinate its local volunteers to provide these services at the shelters. All services provided by the Red Cross will be in accordance with the Statement of Understanding between the State of Vermont and the American Red Cross. Services provided by the Red Cross at the Receptions Center (shown below) will be under the control of the Bellows Falls Union High School (BFUHS) Reception Center Director, or Designee.

b. Mobilization by the American Red Cross is accomplished in two phases. Initially it will be from the Staging Area and the Reception Center. Subsequently it will be managed from the ARC Job Headquarters for this incident which will be established at the ARC Upper Valley Office in Hartford, Vermont. The diagrams below show the operation of this mobilization in each phase.

c. Services provided by the Red Cross at the Reception Center (shown below) will be under the control of the BFUHS Reception Center Director, or designee.

(1) Leadership of the Administrative Processing and Evacuee Services Branch at the Bellows Falls Union High School Reception Center.

(2) Congregate (Mass) Care Shelter Operations to which evacuees are referred or transported from the BFUHS Reception Center are managed, staffed, and operated by the ARC in accordance with ARC protocols for mass care. Services may include:

a) Congregate (mass) care center management and operations

b) Registration

c) Feeding

d) Housing

e) Counseling

f) Mental Health Services

g) Medical Services - referrals to the first aid station

(3) Coordination of services of other community support organizations, e.g., Salvation Army, church groups, etc., to which evacuees are referred or transported to from the Reception Center, are managed, staffed and operated by the ARC in accordance with ARC protocols for mass care.

d. Additional information can be found in the ARC 3000 series regulations under Nuclear Power Plants.

(f) SSF 11 (Agriculture and Natural Resources)

i. Agency of Agriculture, Food and Markets (SSF 11 Co-Lead)

a. The Agency of Agriculture will implement control of harvesting, sale of crops, and if necessary, the condemnation of contaminated foods, such as meat, meat products, poultry, and poultry products.

b. The Agency of Agriculture provides trained personnel to serve on the Radiological Sampling Teams.

c. SSF 11 Agriculture Qualified Representative – The SSF 11 Agriculture Qualified Representative is the Secretary of Agriculture or designated qualified representative responsible for:

d. Maintaining a data base of all agricultural producers, dairy farms, food processors, feed suppliers, etc., in the ingestion pathway zone and providing that data in map and table form as needed.

e. Providing guidance to the Health Services Coordinator, Radiological Health Advisor, and SEOC Manager regarding protective actions.

f. Coordinating response activities with the U.S. Department of Agriculture and the University of Vermont Extension.

ii. Agency of Natural Resources (SSF 11 Co-Lead)

a. The Agency of Natural Resources provides trained personnel to serve on the Radiological Sampling Teams.

b. Natural Resources Coordinator - The Natural Resources Coordinator is the Secretary, Agency of Natural Resources or designated qualified representative responsible for:

(1) Advising the SEOC Manager, Health Services Coordinator and/or Radiological Health Advisor concerning actual or projected consequences which may affect the environment.

c. Environmental Coordinator- The Environmental Coordinator is the Commissioner, Department of Environmental Conservation or designated qualified representative responsible for:

(1) Assisting with the determination of impact of the incident on the environment; water supplies; and air and water quality.

(2) Participating in decision-making to advise of the environmental consequences of proposed actions.

d. Fish and Wildlife Coordinator - The Chief Warden or designee is responsible for mobilizing and directing wardens to assist in notification and to advise on the impact to wildlife. The Fish and Wildlife Coordinator may also assume some or all of the duties of either the Natural Resources Coordinator or the Environmental Coordinator. Department personnel may be called on to provide samples of fish and game for environmental testing.

(g) SSF 1 (Transportation)

i. Agency of Transportation - The SSF1 Qualified Representative is the Secretary of Transportation or designated qualified representative responsible for:

a. Identifying appropriate evacuation routes based on road and traffic conditions in coordination with the Police Services Coordinator.

b. Maintaining and/or clearing evacuation routes with problems which could affect evacuation (e.g., emergency snow, ice, or impediment removal).

c. Assisting the Staging Area in providing traffic and access control devices (barricades, signs, etc.).

d. Providing transportation assistance to towns for transportation dependent individuals.

e. Assisting with specialized transportation needs for hospital and long-term care facility patients.

f. Coordinating National Guard transportation resources with the Military Coordinator.

(h) The Vermont Department of Labor

i. The Vermont Department of Labor provides trained personnel to serve on the Radiological Sampling Team.

ii. The Vermont Department of Labor provides a Safety Officer for the Incident Coordination Team (ICT) in the SEOC.

(i) Military Support

i. Military Coordinator - The Military Coordinator is the Director of Military Support, Vermont National Guard, or designated qualified representative responsible for:

a. Establishing and maintaining a direct link between the State EOC and the Adjutant General and Joint Operations Center (JOC) to relay incident information.

b. Expediting the "Calling Out" of the National Guard, if requested by the Governor.

c. Coordinating the delivery of military assistance (e.g., transportation, traffic and access control) upon activation of the National Guard.

d. Facilitating military support from all components of the armed forces to include the Army, Air Force, Naval and Marine Corps Reserves and the Civil Air Patrol (CAP).

(j) Special Teams

i. Radiological Plume Tracking Teams – Two or three 3-person Vermont teams will determine the edges of the plume as assigned. Teams from New Hampshire, Massachusetts, Vermont Yankee and Vermont will cooperate in determining the edges of the radiological plume or confirming the absence of deposition. The Vermont Hazardous Materials Response Team will provide a Director and team members as needed.

ii. Radiological Sampling Teams – Environmental sampling and surveys will be conducted in accordance with the Radiological Sampling Teams

Procedures. The Radiological Sampling Team will collect samples for assessing the impact of the release. The Vermont Department of Health, the Vermont Agency of Agriculture, the Vermont Department of Labor, and the Agency of Natural Resources will provide members for the teams.

(3) Local Government

In response to an emergency, each town will mobilize and use available resources to mitigate the off-site consequences. The emergency organization of each EPZ Jurisdiction and its response to a radiological emergency is described in the Radiological Emergency Response Plan for each town. The State will coordinate with local organizations, relay information, and provide additional resources to support the local response.

(4) Federal Government

Emergency aid and disaster assistance to State and local governments is available from the federal government through the Nuclear/Radiological Incident Annex of the National Response Framework and the Federal Radiological Monitoring and Assessment Plan (FRMAP). The incident annex provides for both federal technical and non-technical support at the request of the State. The federal assistance available to the state is described in Section 18 of this plan.

(5) Special Organizations

(a) Radio Amateur Civilian Emergency Services (RACES)

The Radio Amateur Civilian Emergency Services (RACES) is a network of volunteer radio operators using privately owned amateur radio equipment. These volunteer radio operators are available to provide backup or supplementary radio communications where needed.

(6) Utility (Vermont Yankee Nuclear Power Station)

(a) The Vermont Yankee Nuclear Power Station has established Emergency Response Organizations. These organizations include on-shift personnel, corporate personnel, Yankee Nuclear Services Division personnel, local services support, and private organizations support.

(b) In the initial phase of an accident, the on-shift organization will be responsible for event assessment, classification, protective action decision making, notification, and completion of primary emergency actions. Subsequently, additional resources will be activated with the capability of continuous (24-hour per day) operations for a protracted period.

(c) The Vermont Yankee Nuclear Power Station, based on their licensing agreements with the NRC, and agreements with the affected states, have accepted responsibility for initiating the necessary immediate action required to:

i. Limit the consequences of an accident.

ii. Evaluate the conditions and determine the magnitude of an accident.

iii. Immediately notify appropriate state and federal agencies, with appropriate protective action recommendations as necessary (shelter-in-place or evacuation).

iv. Minimize public and plant personnel radiation exposure or injury.

v. Take immediate steps to limit or reduce the loss to property. The specific emergency responsibilities of the on-site Emergency Response Organizations are described in their respective emergency plans.

Note: The Yankee Rowe Nuclear Power Station is decommissioned. A dry cask fuel storage site has been constructed. An emergency at Yankee Rowe could only reach an Alert level and would require many fewer resources than an operating plant.

B. Emergency Response Facilities

(1) State-Operated Facilities

(a) State Emergency Operations Center

The State Emergency Operations Center (SEOC) is located at Vermont Division Emergency Management and Homeland Security, in the Department of Public Safety Headquarters, 103 South Main Street, Waterbury, Vermont, 05671-2101. The interim SEOC is located in the basement of the Weeks Building next to the Public Safety Building.

This facility serves as the command and control center for off-site response efforts. It also serves as the central point for the receipt and analysis of field monitoring data used in accident assessment. The SEOC is activated at an Alert or higher classification. At the discretion of the SEOC Manager, essential DPS support staff may be requested to report to the EOC at an Unusual Event to standby and monitor the situation. The SEOC may be staffed on a 24-hour basis with qualified representatives from:

i. The Governor's Office

ii. SSF 1 (Transportation – Agency of Transportation

iii. SSF 2 (Communications) – Department of Information and Innovation and Department of Public Safety, Criminal Justice Services

iv. SSF 3 (Public Works and Engineering) – Agency of Transportation and Department of Public Safety, Division of Fire Safety

v. SSF 4 (Firefighting) – Department of Forests, Parks and Recreation, and Department of Public Safety, Division of Fire Safety

vi. SSF 5 (Emergency Management, Recovery and Mitigation) – Department of Public Safety, Division of Emergency Management and Homeland Security

vii. SSF 6 (Mass Care, Housing, Emergency Assistance and Human Services) – Agency of Human Services with American Red Cross

viii. SSF 7 (Resource Support) – Department of Building and General Services and Commission on National and Community Services

ix. SSF 8 (Health and Medical Services) – Department of Health

x. SSF 9 (Search and Rescue) – Department of Public Service, Vermont State Police

xi. SSF 10 (Hazardous Materials) – Department of Public Safety, Division of Fire Safety

xii. SSF 11 (Agriculture and Natural Resources – Agency of Agriculture, Food and Markets and Agency of Natural Resources

xiii. SSF 12 (Energy) – Department of Public Service

xiv. SSF 13 (Law Enforcement) – Department of Public Safety, Vermont State Police

xv. SSF 14 (Public Information) – Department of Public Safety, Division of Emergency Management and Homeland Security

xvi. Radio Amateur Civilian Emergency Services (RACES)

The State EOC is capable of continuous (24-hour) uninterrupted operations for a protracted period. Multiple shifts may be necessary to maintain uninterrupted coverage, the nature and extent of which will be incident dependent. The State EOC contains the communications equipment, maps, status boards, plans and procedures, and other resources necessary to support the response effort. In addition to the named EOC staff positions, sufficient support staff will be provided by the Department of Public Safety and other involved State agencies to ensure sufficient operation of the EOC. The SEOC Manager, through the EOC support staff, will ensure the continuity of the necessary technical, administrative, and material resources during response operations. Prior to a shift change, outgoing staff provides incoming staff with:

i. A briefing on the current emergency classification and the status of emergency response efforts.

ii. All relevant documentation (procedure, log forms, message forms).

(b) Staging Area

The Staging Area (SA) is located at the Agency of Transportation, District 2, Maintenance Division facility on U.S. Route 5 in Dummerston. The Staging Area serves primarily as a near-site point of contact between the State and affected local governments, and as a staging area for emergency response personnel, e.g., radiological monitoring, access and traffic control, operating in the field. Radiological monitoring and decontamination of emergency workers is also performed at the Staging Area. The Staging Area sets up and operates a transportation resources staging area in an appropriate location near the EPZ. The Staging Area provides traffic and access control devices to state traffic and access control points as needed.

The Staging Area Manager is the Agency of Transportation District 2 Administrator or designated qualified representative. The Staging Area Director is notified at all emergency classification levels and is responsible for notifying the Staging Area staff. The Staging Area is staffed at the Alert level with personnel from various state and local agencies which may include representation from the Department of Health, Vermont State Police, Agency of Transportation, Agency of Human Services, and the Windham County Sheriff's Department. The Staging Area is capable of 24-hour operations. For more detail, refer to the Staging Area Plan.

(c) Bellows Falls Union High School Reception Center (BFUHS)

The primary reception center for Vermont residents is the Bellows Falls Union High School in Westminster, Vermont, approximately 13 miles outside the plume exposure pathway EPZ. The functions of the Reception Center are further discussed in Section 15 of the VRERP and the Bellows Falls Union High School Reception Center Plan.

(d) State of Vermont Department of Health Laboratory

The State of Vermont maintains a complete radiological laboratory at 195 Colchester Avenue in Burlington, Vermont. This facility is the primary laboratory for radiological evaluation and analysis and is operated by the Department of Health.

(e) State Warning Point (SWP)

The State Warning Point (SWP), Vermont State Police Dispatch Center, Rockingham, serves as the initial notification point to off-site authorities from

the Vermont Yankee Control Room. The SWP is staffed on a 24-hour basis and is prepared to send uniformed officers to any town that can not be contacted by pager or phone.

(f) Alternate State Warning Point (ASWP)

The alternate SWP located at the Vermont State Police Station in Derby, assists the SWP in notifications and performs notifications when the SWP is not able.

(g) Sample Transfer Point

One or more transfer points will be selected by the Radiological Plume Tracking Team Director and the Radiological Sampling Team Director in coordination with the Radiological Health Advisor at the State EOC. Samples will be transported by the Vermont HazMat Team or other designated organization from this location to the Vermont Department of Health Laboratory. A backup means of sample transport will be via the Vermont Civil Air Patrol and/or the Vermont National Guard.

(2) Utility-Operated Facilities

(a) Emergency Operations Facility

In the event of an emergency, the licensee is required to establish an off-site facility referred to as the Emergency Operations Facility (EOF). The EOF is located at Vermont Yankee Corporate Headquarters, Ferry Road, Brattleboro, Vermont.

The EOF serves as the near-site technical support center established to coordinate the activities of VY emergency response personnel, evaluate off-site accident conditions, and maintain coordination and communications with off-site response authorities. Direct links are established between the EOF, Vermont, Massachusetts, and New Hampshire EOCs, and the News Media Center/Joint Information Center for up-to-date emergency status reports. Vermont, Massachusetts, and New Hampshire state personnel are provided space and communications at the EOF and staff this facility at an Alert or higher classification. State personnel are capable of sustaining 24-hour operations.

(b) News Media Center/Joint Information Center

The News Media Center/Joint Information Center is located at Vermont Yankee Corporate Headquarters, Ferry Road, Brattleboro, Vermont. This center provides a centralized location for holding joint State, federal, and licensee emergency news briefings. The utility will also staff rumor control operations at this facility. A State Public Inquiry number will be staffed at

the State EOC in Waterbury.

The State will dispatch a Joint Information Center Team to the News Media Center/Joint Information Center upon its activation. Staff representing the State of Vermont are assigned for sustained 24-hour operations at the News Media Center/Joint Information Center. The alternate News Media Center/Joint Information Center is located at Landmark College in Putney, Vermont, in the event the Brattleboro News Media Center/Joint Information Center is evacuated.

C. Emergency Response Actions

In the event of an accident at Vermont Yankee, each organization would be notified in accordance with established state procedures. Notification and activation of these organizations is addressed in Section 7. The plant operators will notify the State Warning Point at the Vermont State Police Office in Rockingham, Vermont. The State Warning Point will then notify Vermont Division of Emergency Management and Homeland Security (EMHS), the Governor's Office, and other designated contacts for each organization. A description of communications systems used is contained in Section 6, "Facilities and Equipment."

The State Emergency Operations Center (SEOC) is located within the offices of EMHS in Waterbury, Vermont. Upon notification of an Unusual Event the State EOC will be activated to at least a Level 2. Upon notification of an Alert, the State EOC in Waterbury will be activated to level 3 and 4 and staffed with selected qualified agency personnel from various Vermont state agencies and state-wide organizations. Other RERP Facilities are also activated at Alert. Figure 8-4 represents those agencies performing ingestion pathway activities and depicts various responsibilities for each agency.

To ensure a timely and effective response, the licensee, State, and local organizations have identified specific actions that will be taken at each emergency classification. This section summarizes the licensee and State actions required in response to each emergency classification level. Once the classification has been received by the State from the licensee, each State agency responder will perform the specified actions in their implementing procedures. The specific actions of the utility emergency response organization are provided in the Vermont Yankee Nuclear Power Station Emergency Plan and Implementing Procedures. Local actions are described in the EPZ town-specific radiological emergency response plans.

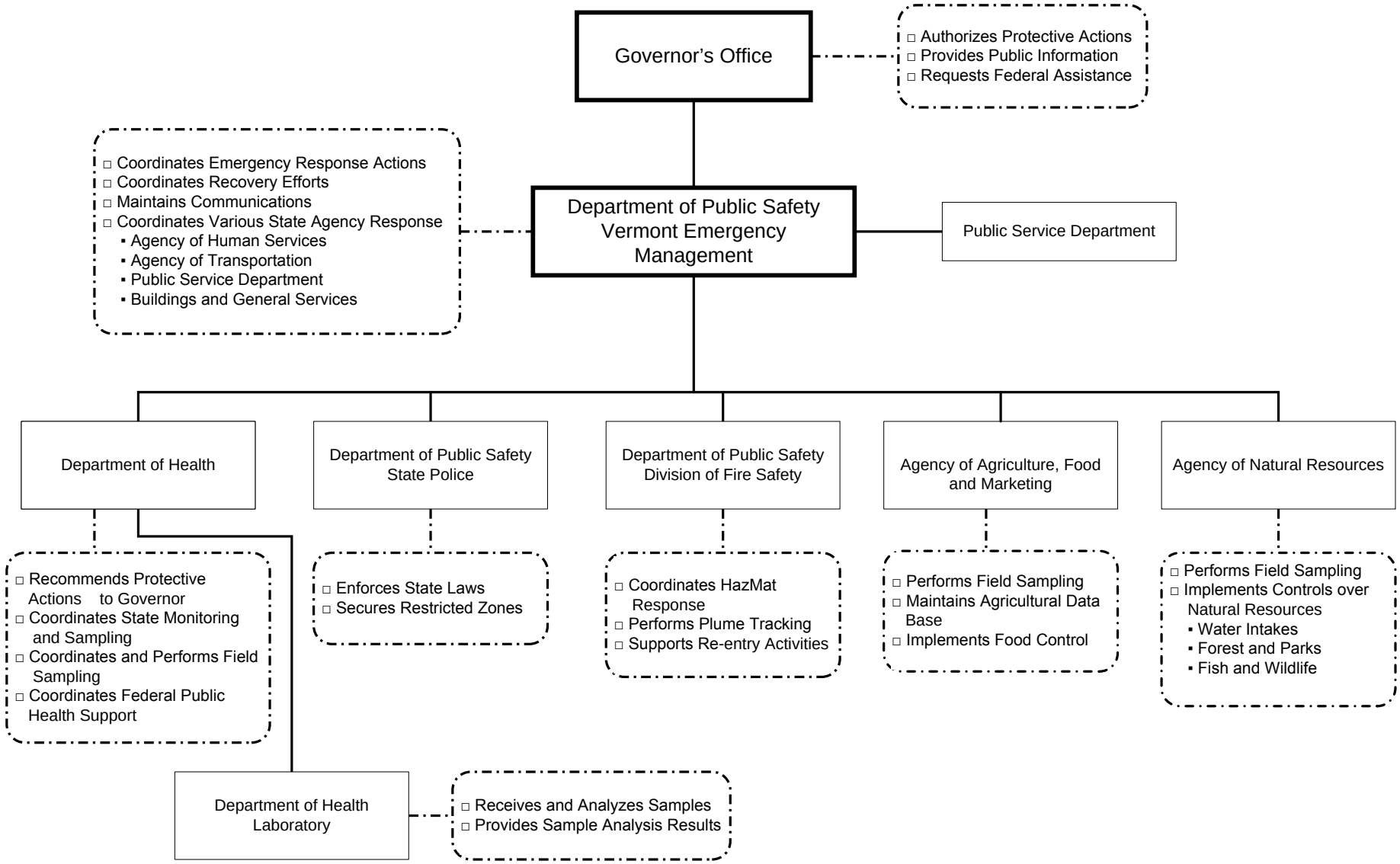


FIGURE 8-4
Ingestion Pathway Responsibility Diagram

UNUSUAL EVENT

Initiating Conditions

Description	Purpose
Unusual events are in process or have occurred that indicate a potential degradation in the level of plant safety. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.	1. Assure that the first step in any response later found to be necessary has been carried out. 2. Bring the plant operating staff to a state of readiness. 3. Provide systematic handling of information and decision making.

Licensee Actions
On-Site

1. Upon emergency classification, Vermont Yankee will immediately notify the Vermont State Warning Point (SWP), Vermont State Police Dispatch, Rockingham, or the Vermont State Alternate Warning Point (ASWP), Vermont State Police Dispatch, Derby.

2. Vermont Yankee personnel will respond and assess the situation.

3. On-shift resources will be augmented if necessary.

Note: If initial notification states that the unusual event is, or has been immediately terminated, no further action is required.

For a continuing event:

4. Periodic plant status reports will be provided to the SEOC Manager or Director, EMHS at the State EOC in Waterbury.

5. The State Emergency Operations Center (EOC) will be notified when the event is over.

6. Provide written reports required by the Nuclear Regulatory Commission (NRC) to the SEOC Manager or Director, EMHS.

OR

ESCALATE TO A MORE SERIOUS
EMERGENCY CLASSIFICATION LEVEL

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UNUSUAL EVENT

State Actions
Off-Site

1. The **State Warning Point (SWP)**, Vermont State Police Dispatch, Rockingham, or The State Alternate Warning Point (ASWP), Vermont State Police Dispatch, Derby, upon receipt of notification of an **UNUSUAL EVENT** from the Vermont Yankee Control Room will immediately notify:

   A. EPZ Towns and Essential Local Responders
      (1) Brattleboro
      (2) Dummerston
      (3) Guilford
      (4) Halifax
      (5) Marlboro
      (6) Vernon
      (7) Westminster (Bellows Falls Union High School) Reception Center
      (8) State EOF Liaison
      (9) Staging Area Manager
      (10) WTSA AM/FM (CPCS-1)
      (11) American Red Cross
      (12) Vermont JIC Team

   B. Essential State Agency Personnel

      Refer to the current AStandard Version@ of the Notification Manual for more detail.

      Note: The personnel identified in Steps 1-A and B will be notified even if the unusual event was immediately terminated.

2. The State EOC will be activated on at least a partial basis.

3. The Nuclear Engineer and the Radiological Health Advisor will obtain additional information from the licensee.

4. Director, Vermont Division of Emergency Management and Homeland Security, may dispatch selected EMHS personnel to the State EOC to standby and monitor the situation.

5. The State EOC will remain activated and local response personnel will remain on standby pending a closeout of the emergency.

OR

ESCALATE TO A MORE SERIOUS
EMERGENCY CLASSIFICATION LEVEL

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ALERT

Initiating Conditions

Description	Purpose
Events are in process or have occurred that involve an actual or potential substantial degradation in the level of plant safety. Releases are expected to be limited to small fractions of the U.S. Environmental Protection Agency (EPA) Protective Action Guides (PAGs) exposure levels.	1. Assure that emergency personnel are readily available to respond if the situation becomes more serious or to perform confirmatory radiation monitoring, if required. 2. Provide off-site authorities with current status information. 3. Activate certain local and state facilities.

Licensee Actions
On-Site

1. Upon emergency classification, Vermont Yankee will immediately notify the Vermont State Warning Point (SWP), Vermont State Police Dispatch, Rockingham, or the Vermont State Alternate Warning Point (ASWP), Vermont State Police Dispatch, Derby.

2. Emergency facilities (including the Emergency Operations Facility) will be staffed and operated in accordance with the appropriate procedures.

3. The News Media Center/Joint Information Center will be activated and staffed by utility and State and federal personnel.

4. Plant conditions will be continuously assessed.

5. Periodic (minimum 30-minute intervals) plant status reports will be provided to the state.

6. State concurrence to closeout the emergency will be obtained and any written reports required by the Nuclear Regulatory Commission (NRC) will be provided to the SEOC Manager or Director, EMHS.

OR

ESCALATE TO A MORE SERIOUS
EMERGENCY CLASSIFICATION LEVEL

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ALERT

State Actions
Off-Site

Note: Refer to the current version of the AVermont Precautionary and Protective Actions@ list for additional detail.

1. The **State Warning Point (SWP)**, Vermont State Police Dispatch, Rockingham, or the State Alternate Warning Point, Vermont State Police, Derby Station, upon receipt of notification of an **ALERT** will immediately notify the following:

   A. EPZ Towns and Essential Local Responders

      (1) Brattleboro
      (2) Dummerston
      (3) Guilford
      (4) Halifax
      (5) Marlboro
      (6) Vernon
      (7) Westminster (Bellows Falls Union High School) Reception Center
      (8) State EOF Liaison
      (9) Staging Area Manager
      (10) WTSA AM/FM (CPCS-1)
      (11) American Red Cross
      (12) Vermont JIC Team

   B. Essential State Agency Personnel

      Note: Refer to the current AStandard Version@ of the Notification Manual for more detail.

2. The State EOC in Waterbury, Public Safety Headquarters, will be activated.

3. Town EOCs will be activated and staffed.

4. As a precaution, school buses may be mobilized and pre-staged at respective schools as early as the **Alert** level. Vermont Division of Emergency Management and Homeland Security, upon the advice of the Vermont Department of Health, may direct the transfer of school students (to include private schools and child care centers) to the Bellows Falls Union High School (BFUHS) Reception Center. Under these circumstances, the Reception Center at the BFUHS would be opened to receive school children. Key reception center staff may be asked to report to BFUHS for a Phase I activation.

5. The Staging Area in Dummerston will be activated and needed transportation resources mobilized as needed. The transportation resource staging area will be activated as needed.

6. The Nuclear Engineer and State Emergency Operations Facility (EOF) Liaison will be dispatched to the EOF.

7. Accident assessment will be initiated and the radiological monitoring teams will be dispatched to the Staging Area.

8. Communications with the local EOCs and Massachusetts and New Hampshire State EOCs will be established and maintained.

9. Information received from the utility will be continuously assessed.

10. The Federal Emergency Management Agency (FEMA), Region I, and other federal agencies will be contacted, as required.

11. Termination of the event will be performed as follows:

    A. The State of New Hampshire and Commonwealth of Massachusetts will be notified of the intent to closeout and requested to concur, as appropriate.

    B. All federal agencies contacted in relation to the incident will be notified of intent to closeout.

    C. The utility will be provided with State concurrence of the closeout.

    D. All State and local response personnel will be notified of the closeout.

OR

ESCALATE TO A MORE SERIOUS
EMERGENCY CLASSIFICATION LEVEL

SITE AREA EMERGENCY

Initiating Conditions

Description	Purpose
Events are in process or have occurred that involve actual or likely major failures in plant functions needed for protecting the public. Releases are not expected to exceed EPA PAG exposure levels, except near the site boundary.	1. Assure that response centers are staffed. 2. Assure that monitoring teams are dispatched. 3. Assure that personnel required for evacuation of near-site areas are at duty stations if the situation becomes more serious. 4. Provide consultation with off-site authorities. 5. Provide updates for the public through off-site authorities.

Licensee Actions
On-Site

1. Vermont Yankee will provide initial notification of a **SITE AREA EMERGENCY** to the Vermont State Warning Point, Vermont State Police Dispatch, Rockingham, or the Vermont Alternate State Warning Point, Vermont State Police Dispatch, Derby

OR

Vermont Yankee will escalate from a lower classification and notify (via the Site Recovery Manager) the State EOF Liaison and State EOC.

AND

2. All actions required under an **ALERT** classification will be initiated if not already performed.

3. Actual and/or projected dose estimates will be provided to the State EOC.

4. The intent to closeout the emergency will be coordinated with the State EOF Liaison and the State EOC in Waterbury.

5. State concurrence to closeout the emergency will be obtained and any written reports required by the Nuclear Regulatory Commission (NRC) will be provided to the SEOC Manager or Director, EMHS.

OR

ESCALATE TO A GENERAL EMERGENCY

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SITE AREA EMERGENCY

State Actions
Off-Site

Note: Refer to the current version of the AVermont Precautionary and Protective Actions@ list for additional detail.

1. All actions required under an **ALERT** classification will be initiated, if not already performed.

2. Radiological Monitoring Teams will be dispatched to perform off-site monitoring.

3. State personnel assigned to the News Media Center/Joint Information Center, Vermont Yankee Corporate Office, Ferry Road, Brattleboro, Vermont will be dispatched.

4. Information from the utility concerning plant conditions and data from utility and state off-site monitoring teams will be continuously assessed to determine off-site consequences and the need for protective actions.

5. The precautionary action of sheltering and placing milk animals within ten miles of the plant (or greater distance if necessary) on stored feed and protected water supplies will be recommended.

6. Bellows Falls Union High School Reception Center will be activated to Phase II.

7. The Public Notification System (sirens, NOAA Weather Alert Radios, automated telephone notification, and EAS) may be activated in coordination with Massachusetts and New Hampshire to notify and provide instructions to the public.

8. State personnel may be dispatched to parks and recreation areas to notify the transient population of the emergency situation and to leave the area as instructed.

9. Termination of the event will be performed as follows:

   A. The State of New Hampshire and the Commonwealth of Massachusetts will be notified of the intent to closeout and requested to concur, as appropriate.

   B. All federal agencies contacted in relation to the incident will be notified of intent to closeout.

   C. The utility will be provided with State concurrence of the closeout.

   D. All State and local response personnel will be notified of the closeout.

OR

ESCALATE TO A GENERAL EMERGENCY

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GENERAL EMERGENCY

Initiating Conditions

Description	Purpose
Events are in process or have occurred that involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity. Releases can reasonably be expected to exceed EPA PAG exposure levels off-site, beyond the immediate site area.	1. Initiate predetermined protective actions for the public. 2. Provide continuous assessment of information from licensee and off-site organization measurements. 3. Initiate additional measures as indicated by actual or potential releases. 4. Provide updates for the public through off-site authorities.

Licensee Actions
On-Site

1. Vermont Yankee will provide initial notification of a **GENERAL EMERGENCY** to the Vermont State Warning Point, Vermont State Police Dispatch, Rockingham, or the Vermont Alternate State Warning Point, Vermont State Police Dispatch, Derby

   OR

   Vermont Yankee will escalate from a lower classification and notify (via the Site Recovery Manager) the State EOF Liaison and State EOC.

2. All actions required under a **SITE AREA EMERGENCY** classification will be initiated if not already performed.

3. The plant will make protective action recommendations to the State as necessary.

4. The plant will continue to provide information to the State regarding actual or potential release conditions, plant conditions, meteorological conditions, and dose estimates.

5. The intent to closeout the emergency will be coordinated with the State EOF Liaison and the State EOC in Waterbury.

6. State concurrence to closeout the emergency will be obtained and any written reports required by the Nuclear Regulatory Commission (NRC) will be provided to the SEOC Manager or Director, EMHS

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GENERAL EMERGENCY

State Actions

Off-Site

Note: Refer to the current version of the AVermont Precautionary and Protective Actions@ list for additional detail.

1. All actions required under a **Site Area Emergency** classification will be initiated, if not already performed.

2. Plant data and off-site radiological data will be evaluated to determine the off-site consequences and formulate protective actions.

3. Protective actions for the public will be recommended and implemented upon approval of the Governor or designee.

4. Protective action recommendations will be coordinated with Massachusetts and New Hampshire.

5. Activation of the Public Notification System will be coordinated with Massachusetts and New Hampshire to alert and provide instructions to the public regarding the implementation of protective actions.

6. Emergency worker exposure rates will be monitored.

7. If appropriate, termination of the event will be performed as follows:

   A. The State of New Hampshire and Commonwealth of Massachusetts will be notified of the intent to closeout and requested to concur, as appropriate.

   B. All federal agencies contacted in relation to the incident will be notified of intent to closeout.

   C. The utility will be provided with State concurrence of the closeout.

   D. All State and local response personnel will be notified of the closeout.

8. If appropriate, a transition to Recovery will in initiated by the State EOC as follows:

   A. The Planning Section will start coordinating the development of a recovery plan with appropriate state support functions.

   B. Contact will be made with Federal agencies having responsibilities in a nuclear power plant accident.

   C. An Advance Party meeting will be conducted with key personnel responding from Federal agencies.

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9. METEOROLOGY

The release of radioactive materials from a nuclear power plant may create a broad range of effects. Airborne releases, which are the primary concern in Vermont, produce what is referred to as a **"Plume"**. Plume arrival times are shown in Table 9-1. The most general description of plume behavior is that it will travel downwind at slightly less than wind velocity, becoming wider as it moves outward from its source, while its radioactive intensity declines proportionately.

A plume may assume many shapes, spreading unevenly, vertically or horizontally, or even standing still for a time. The primary factors which affect plume behavior are wind speed and direction. Cloud formations and precipitation also contribute to the character of a plume to a lesser degree. Ambient temperature, air stability, and wind speed affect plume rise. Air stability can be determined through meteorology.

The rate at which temperature decreases with elevation is called the **VERTICAL TEMPERATURE GRADIENT** or **LAPSE RATE.** Within the troposphere, the area of the atmosphere within which virtually all weather phenomena occur, the temperature declines at an average rate of 3 degrees Fahrenheit per 1,000 feet of altitude.

The **LAPSE RATE** of air existing at a given time and place determines the degree of vertical stability. A parcel of air that resists upward or downward displacement because of a certain **LAPSE RATE** is considered to be **STABLE.** A layer of air which will rise or sink of its own accord, given an impulse, is said to be **UNSTABLE.**

Unstable air masses provide good **"mixing"** or diffusion characteristics for materials which might be injected, due to the susceptibility to vertical motion. Stable air produces the opposite effect with poor diffusion. The dispersion of radioactive materials is greatly affected by the degree of stability.

Three model plume profiles are shown in Figures 9-1, 9-2, and 9-3 and can be adapted to field operations and represent logical extremes for planning purposes. Theoretical plume widths are shown in Figure 9-4.

Meteorological information may be obtained from several sources including but not limited to the following:

A. Plant Weather Station(s): Weather data for the immediate area including temperature, precipitation, wind direction, wind speed and lapse rate for use in determining the air stability class.

B. National Weather Service: Full range of forecasting services.

C. Private Weather Consultants: Specific area forecasting.

Meteorological information from the Plant Weather Station(s) is the most representative in determining plume behavior. NWS and private weather services can be useful in providing **weather predictions**.

TABLE 9-1

Plume Arrival Time Estimator *
(Travel Time Shown in Hours and Minutes)

Distance From Plant	5 Miles	10 Miles	15 Miles	20 Miles
Wind Speed-MPH				
5	1:00	2:00	3:00	4:00
6	0:50	1:40	2:30	3:20
7	0:43	1:25	2:08	2:50
8	0:38	1:15	1:53	2:30
9	0:33	1:07	1:40	2:13
10	0:30	1:00	1:30	2:00
11	0:27	0:55	1:22	1:47
12	0:25	0:55	1:15	1:40
13	0:23	0:46	1:09	1:32
14	0:22	0:43	1:04	1:26
15	0:20	0:40	1:00	1:20
16	0:19	0:38	0:56	1:15
17	0:18	0:35	0:53	1:11
18	0:17	0:33	0:50	1:07
19	0:16	0:32	0:47	1:03
20	0:15	0:30	0:45	1:00
25	0:12	0:24	0:36	0:48
30	0:10	0:20	0:30	0:40
35	0:09	0:17	0:26	0:34

Time estimates shown are based on wind speed and distance only. Mitigating factors of

weather and topography are not included. This chart intended as a quick-reference and planning guide only.

TABLE 9-2

Meteorological Tables

Classification of Atmospheric Stability					
Stability Classification	**Pasquill Categories**	**Temperature Change with Height (EC/100 m)**	**Stability Class As A Function of Lapse Rate (ΔT) Vermont Yankee**		
			Lower Primary Tower ΔT (EF/165 ft)	**Upper Primary Tower ΔT (EF/262 ft)**	**Back-Up Tower ΔT (EF/102 ft)**
Extremely Unstable	A	-1.9	ΔT ≤-1.72	ΔT ≤-2.74	ΔT ≤-1.06
Moderately Unstable	B	-1.9 to -1.7	-1.71 ≤ΔT ≤-1.54	-2.73 ≤ΔT ≤-2.45	-1.05 ≤ΔT ≤-0.95
Slightly Unstable	C	-1.7 to -1.9	-1.53 ≤ΔT ≤-1.36	-2.44 ≤ΔT ≤-2.16	-0.94 ≤ΔT ≤-0.84
Neutral	D	-1.5 to -0.5	-1.35 ≤ΔT ≤-0.46	-2.15 ≤ΔT ≤-0.72	-0.83 ≤ΔT ≤-0.28
Slightly Stable	E	-0.5 to 1.5	-0.45 ≤ΔT ≤+1.35	-0.71 ≤ΔT ≤+2.15	-0.27 ≤ΔT ≤+0.83
Moderately Stable	F	1.5 to 4.0	+1.36 ≤ΔT ≤+3.62	+2.16 ≤ΔT ≤+5.74	+0.84 ≤ΔT ≤+2.23
Extremely Stable	G	4.0	+3.63 ≤ΔT	+5.75 ≤ΔT	+2.24 ≤ΔT

TABLE 9-2

Meteorological Tables

(Continued)

Relation of Pasquill Turbulence Types to Weather Conditions					
Surface Wind Speed, mph	**Daytime Incoming Solar Radiation**			**Nighttime Cloud Cover**	
	Strong	**Moderate**	**Slight**	**Thin Overcast or ∃4/8 Cloudiness***	**#3/8 Cloudiness**
<4.5	A	A-B	B		
4.5-6.7	A-B	B	C	E	F
6.8-11.1	B	B-C	C	D	E
11.2-13.4	C	C-D	D	D	D
>13.4	C	D	D	D	D

The degree of cloudiness is defined as that fraction of the sky above the local apparent horizon that is covered by clouds. The neutral class, D, should be assumed for overcast conditions during day or night, regardless of wind speed.

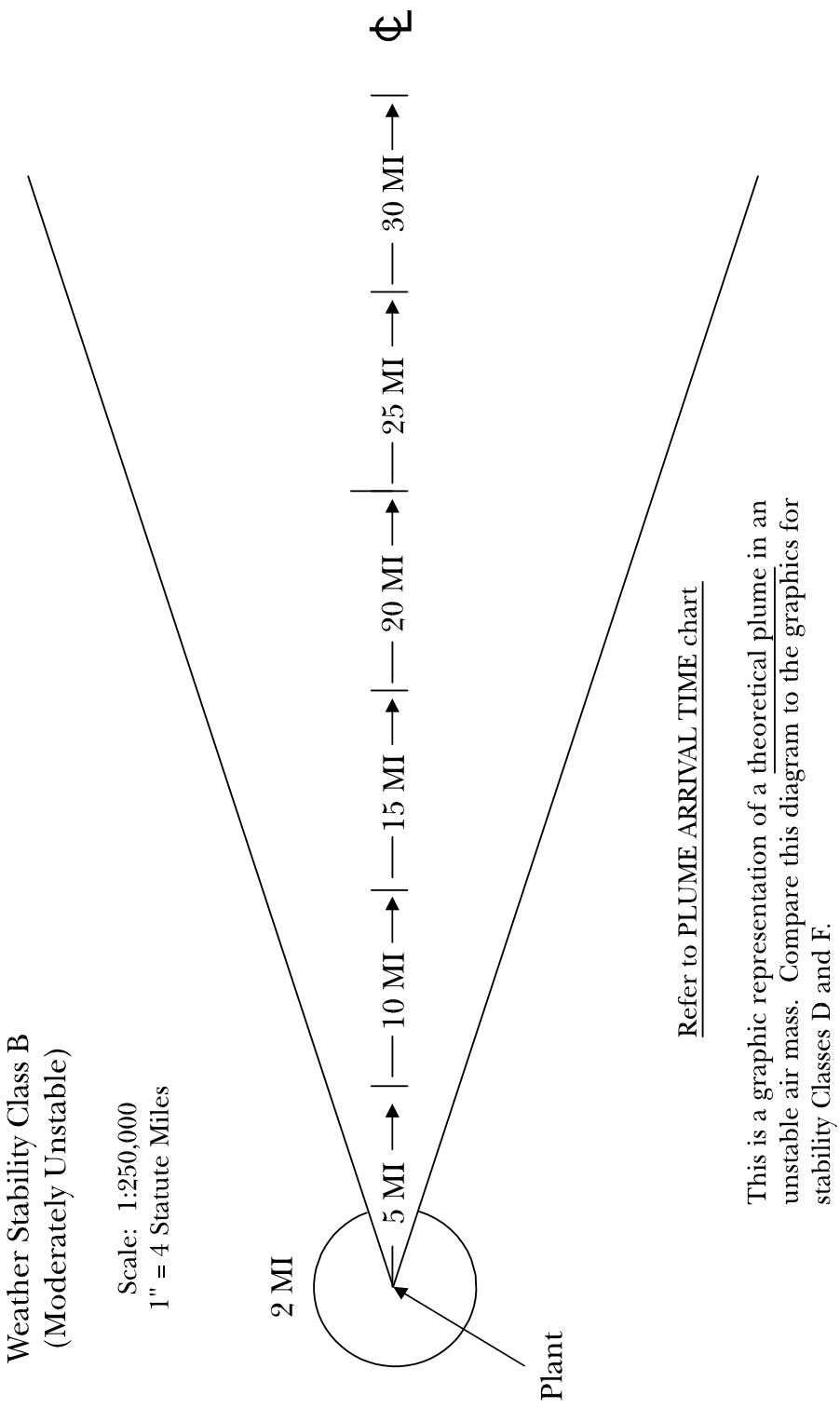


FIGURE 9-1
Plume Graphic, Weather Stability Class B

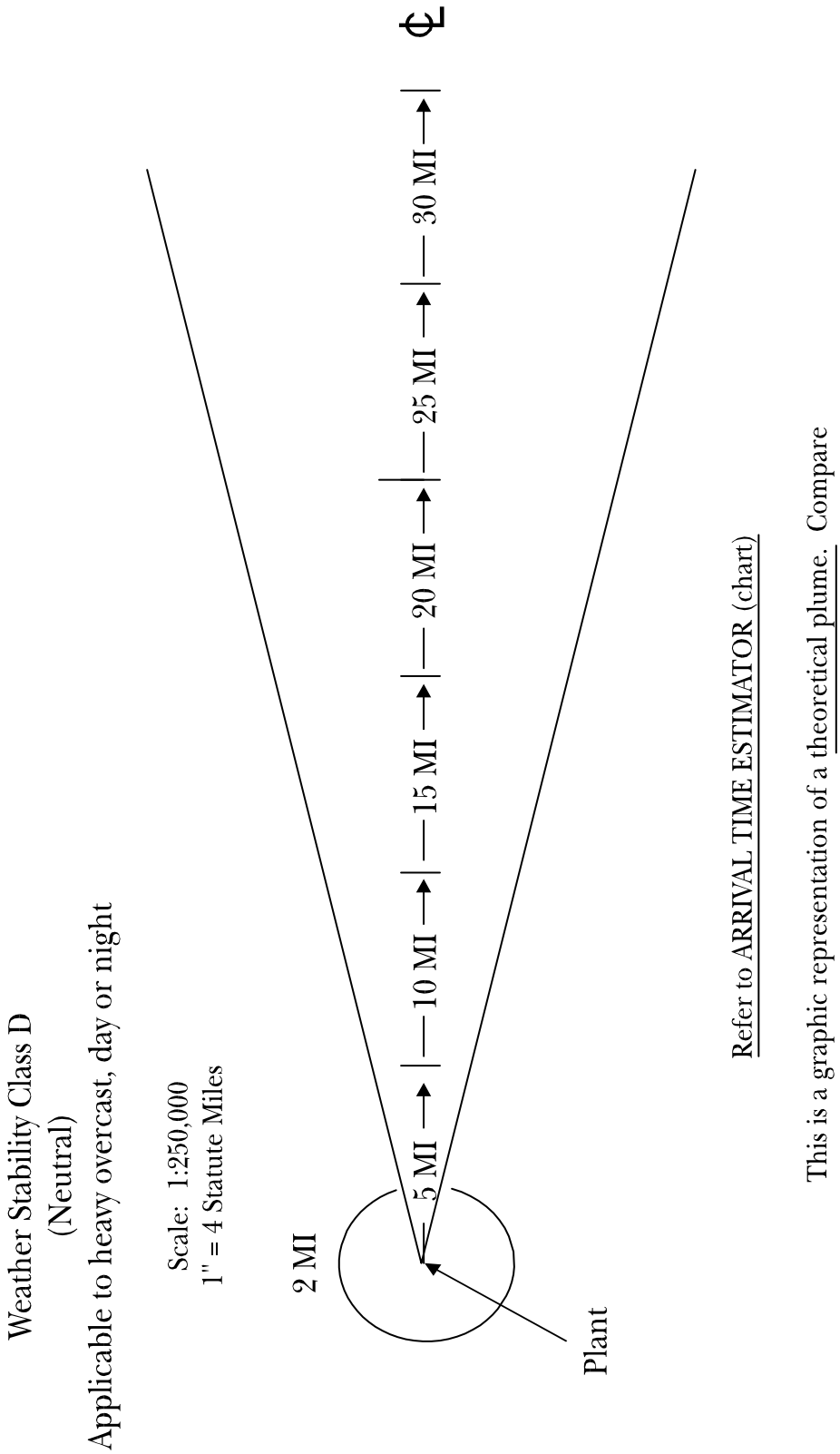


FIGURE 9-2
Plume Graphic, Weather Stability Class D

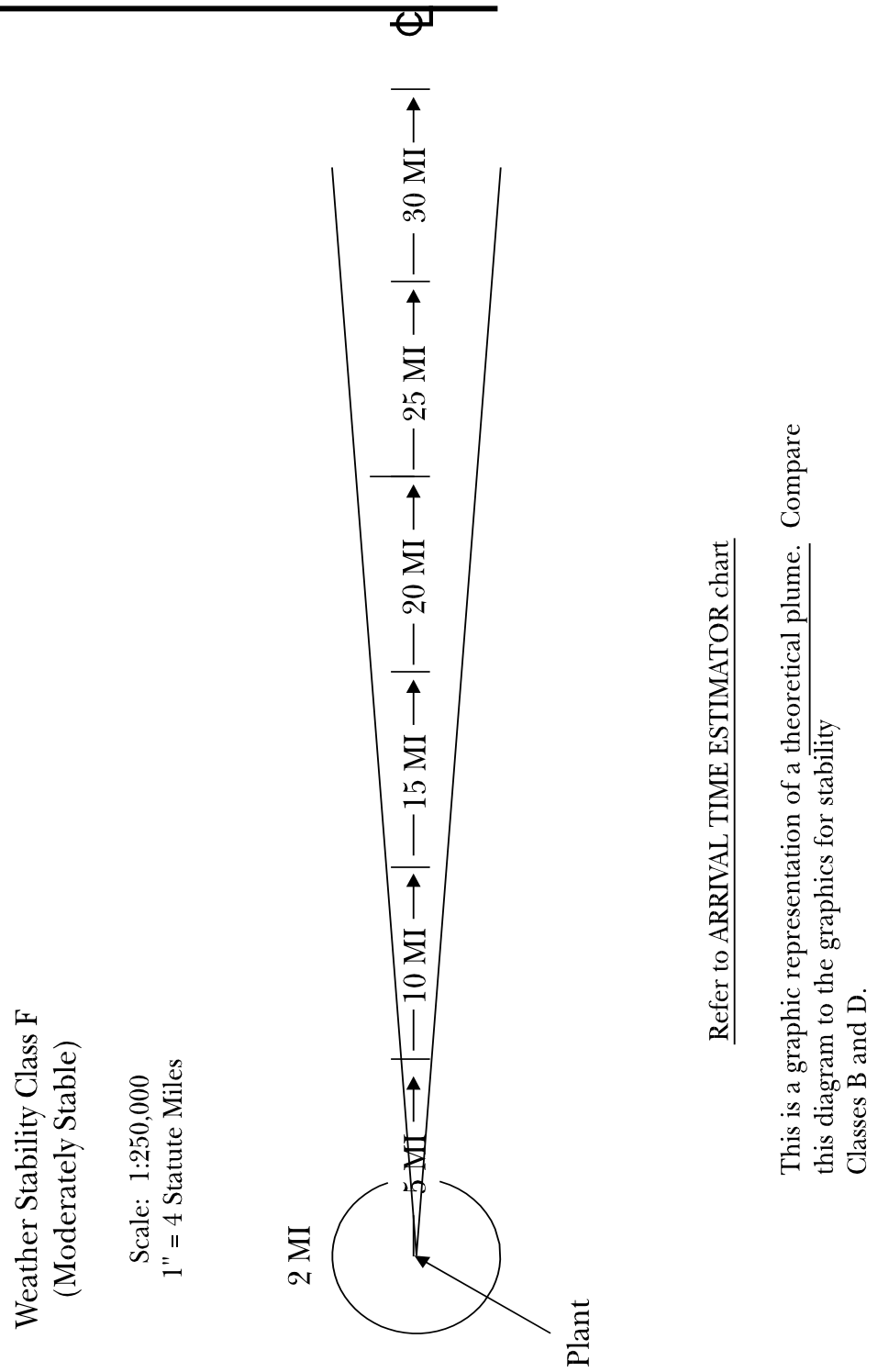
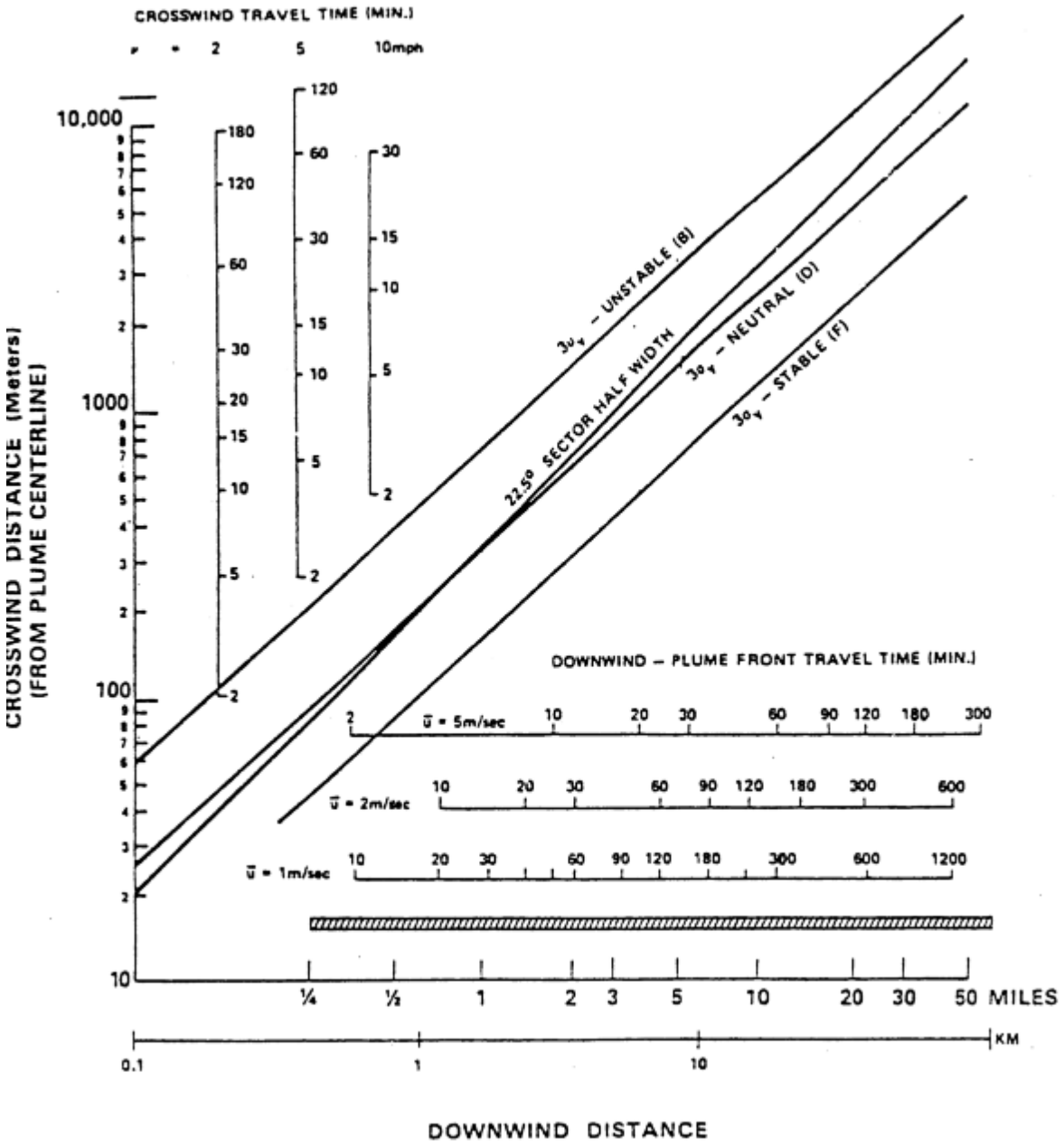


FIGURE 9-3

Plume Graphic, Weather Stability Class F



Three sigma half-widths of Gaussian shaped plumes vs. downwind distance, for Pasquill stability Classes B, D, and F. Also shown are travel times of plume fronts for wind speeds of 1, 2, and 5 m/sec, and crosswind travel times for travel speeds of 2, 5, and 10 mph.

FIGURE 9-4
Theoretical Plume Width

10. ACCIDENT ASSESSMENT

This section summarizes the responsibilities and actions of the State in evaluating the actual or potential consequences of a radiological incident at the Vermont Yankee Nuclear Power Station. Radiological assessment activities will be directed at the state Emergency Operations Center (EOC) by the Health Services Coordinator (SSF 8 Lead), Radiological Health Advisor, or designee.

Accident assessment includes determining the extent of actual or projected off-site radiological consequences. Assessments are based upon the collection and analysis of data originating from the utility's in-plant monitors, off-site radiological monitoring activities, Vermont Department of Health sampling stations (located around the plant), reported weather conditions and other relevant and appropriate resources. Assessment of environmental sample results will be made using the methods described in the Dose Assessment Team Implementing Procedure or other approach as directed by the Radiological Health Advisor.

A. Responsibilities and Support

(1) Utility

Vermont Yankee has initial responsibility for accident assessment. The plant operator is responsible for recognizing that abnormal events have occurred, classifying the incident in accordance with the Emergency Action Levels, and notifying designated off-site authorities. Throughout the emergency, the plant will provide plant parameters, plant conditions, meteorological data, field data, protective action recommendations, and other pertinent information to State officials. This information will assist the State in assessing the consequences of the accident.

(2) State

The Health Services Coordinator (SSF 8 Lead), assisted by the Radiological Health Advisor, has overall responsibility for accident assessment and determining the impact of the emergency on the health and safety of the public. The Health Services Coordinator is responsible for directing all State radiological monitoring, environmental sampling, and technical assessment activities.

The Public Service Coordinator (SSF 12 Lead) is responsible for monitoring plant conditions and coordinating with accident assessment personnel from the utility.

The Nuclear Engineer monitors and evaluates the physical conditions at the

plant and relays plant-specific information to the Public Service Coordinator. Information on plant conditions is provided to the Health Services Coordinator, Radiological Health Advisor, or designee to be factored into the accident assessment.

Other state agencies provide information and data as necessary in support of accident assessment activities.

(3) New England Compact on Radiological Health Protection

Assistance in performing accident assessment activities is available through the New England Compact on Radiological Health Protection. The Compact was adopted by the six New England States by legislative action and provides the means for obtaining assistance (e.g., laboratory, personnel, equipment) from other states.

The New England Interstate Radiation Assistance Plan delineates the manner in which the New England Compact on Radiological Health Protection will be implemented.

Assistance available through the compact is further described in Section 19 of this Plan.

(4) Federal

Federal technical assistance in accident assessment will be provided as requested by the State through the Nuclear/Radiological Annex to the National Response Framework and the Federal Radiological Monitoring and Assessment Plan (FRMAP).

Examples of the federal support available include assistance from the Nuclear Regulatory Commission in interpreting and analyzing technical information used in protective action decision making; aerial surveys and field monitoring performed by the Department of Energy; and environmental sampling and analysis conducted by the Environmental Protection Agency.

Federal support in accident assessment is further described in Section 19 of this Plan.

B. Emergency Response Data System (ERDS)

The Emergency Response Data System (ERDS) is a direct near real-time electronic data link between the licensee's on-site computer system and the NRC Operations Center that provides for the automated transmission of timely and accurate updates of a limited set of parameters. For Vermont Yankee this

selected set of parameters includes: Reactor Coolant System; Safety Injection; Containment; Radiation Monitoring System; and Meteorological Data.

It is intended for this same electronic data to be transmitted between the NRC Operations Center and the State EOC in Waterbury, Vermont. Representatives of Vermont's Public Service Department are responsible for program operation at the State EOC.

C. Radiological Monitoring

There are two types of field teams that collect data to assist in determining dose projections. The Radiological Plume Tracking Teams perform off-site radiological monitoring during the initial Plume Phase of an incident. Once the plume has settled or dissipated, the Radiological Sampling Teams perform off-site environmental sampling in support of Relocation and Ingestion Pathway assessment activities.

(1) Radiological Plume Tracking Teams

The Radiological Plume Tracking Teams operate under the direction of the Radiological Plume Tracking Teams' Director. Team members and the Director are all drawn from the Vermont Hazardous Materials Response Team (VHMRT).

When notified of declaration of an Unusual Event, the Radiological Plume Tracking Teams' Director will contact and place on Stand-by sufficient members of the VHMRT to staff a minimum of three, 3 person Radiological Plume Tracking Teams.

Upon declaration of an Alert, Radiological Plume Tracking Teams will be instructed by the Radiological Plume Tracking Teams' Director to pick up vehicles, equipment, and supplies and proceed to an identified staging area. Once assembled, the Radiological Plume Tracking Teams' Director will deploy Radiological Plume Tracking Teams to pre-designated sampling points or other locations based on accident conditions. Maps with pre-designated sampling locations may be provided with the monitoring kits and are also available at the State EOC and Staging Area.

The Radiological Plume Tracking Teams Director will be located at the Emergency Operation Facility (EOF). Radiological Plume Tracking Teams may be provided with portable satellite telephones and emergency management radios for communications capability. The Radiological Plume Tracking Teams communicate directly with the Radiological Plume Tracking Teams' Director. The Radiological Plume Tracking Teams' Director also communicates directly with the Department of Health personnel at the State

EOC.

Plume Tracking Teams from Vermont Yankee will determine the center line of the plume.

Vermont Radiological Plume Tracking Teams will be directed to take radiological surveys based on anticipated plume travel in order to determine or verify plume boundaries. These include waist and ground level beta/gamma measurements and the collection of airborne radioiodine and particulate samples and soil samples for laboratory analysis. Off-site field monitoring procedures are provided in the Radiological Plume Tracking Team's implementing procedures.

Results of the field surveys will be transmitted back to the Radiological Health Advisor at the State EOC for accident assessment and protective action decision making. Field monitoring data will be posted at the State EOC. Samples requiring further laboratory analysis will be transported to the State Health Laboratory in Burlington.

(2) Radiological Sampling Teams

Radiological Sampling Teams comprised of personnel from the Departments of Health and Labor and Agencies of Natural Resources and Agriculture, Food and Markets will be dispatched to collect environmental samples. The Radiological Sampling Teams' Director is from one of the participating entities. The Radiological Health Advisor is responsible for providing tasking for all environmental sampling and analysis activities. The Department of Health and Agencies of Natural Resources and Agriculture, Food and Markets will provide information regarding the identification and location of farms, food processors, and water sources that may be impacted.

Approximately six (6) Radiological Sampling Teams (minimum of two, preferably three, persons) per shift are available to perform sample collection. The Agency representatives will serve on teams with legal authority to access farms, food processors, food distributors, or public water systems. To the extent possible, teams will avoid taking samples during the hours of darkness for safety reasons.

Upon declaration of an Alert or higher emergency, Radiological Sampling Team personnel will be placed on standby by the Radiological Sampling Teams' Director.

The Radiological Health Advisor with assistance from the Dose Assessment Team will determine sampling strategies such as the locations where environmental samples are to be obtained, types of samples needed, and the

prioritization of sample analyses. Sampling strategies will consider meteorological data, weather conditions, and field measurements. Upon determination of sampling locations, the Radiological Health Advisor will notify the Radiological Sampling Teams' Director who in turn will brief and deploy the teams. The Radiological Health Advisor will also notify the Vermont State Health Laboratory, and other laboratories providing sample analysis.

The samples which teams will collect during a radiological emergency will include any or all of the following and other media as appropriate:

- Cheese and Dairy Foods
- Drinking Water
- Eggs
- Fruits and Vegetables
- Hay/Silage
- Maple and Honey
- Meat and Meat Products Including Poultry
- Milk
- Sediment
- Snow
- Soil
- Surface Water
- Vegetation/Forage
- Wild Foods (Dandelion Greens, Fiddlehead Greens, Fungi)
- Fish

Sampling activities will be completed in accordance with the "Vermont Radiological Sampling Teams Procedures".

D. Laboratories

The Vermont Department of Health Laboratory will serve as the central point for receipt of most samples collected by the Vermont Radiological Sampling Teams until the Federal Radiological Monitoring and Assessment Center (FRMAC) is established. At that time Vermont Teams may be integrated with Federal Teams.

Analyses will be performed in accordance with the standard laboratory procedures used by the Vermont Department of Health Laboratory.

Tables 10-1 and 10-2 present the analytical equipment and capabilities of the Vermont Department of Health Laboratory.

Additional laboratory support may be obtained through activation of the Nuclear/Radiological Incident Annex to the National Response Framework (NRF), and through activation of the New England Interstate Radiation Assistance Plan.

The Food and Drug Administration Laboratory in Winchester, MA, and Brookhaven National Laboratory in New York are two of the federal laboratories available through the activation of Nuclear/Radiological Incident Annex to the NRF. These laboratories can provide additional capabilities for the analyses of environmental samples. The Radiological Sampling Teams' Director and the Radiological Health Advisor will coordinate the sending of samples to federal laboratories, as needed, and the Vermont Department of Health Laboratory will be kept informed.

The New England Interstate Radiation Assistance Plan, which has been developed in accordance with Article III of the New England Compact on Radiological Health Protection outlines the manner in which interstate mutual aid and assistance will be acquired. It also includes the availability of equipment, capabilities, and load capacities of laboratories of the New England states and personnel resources. The Health Services Coordinator will coordinate the activation of the New England Compact.

TABLE 10-1

Radiation Evaluation Equipment (Vermont Department of Health Laboratory)

Quantity	Type	Manufacturer	Model No.	Lab	Field	Radiation Evaluated					
						Alpha	Beta	Gamma	X-Ray	Neutron	Micro-wave
1	Survey Meter	Ludlum	3 Probe 44-9	X			X	X			
1	Survey Meter	Ludlum	3 Probe 44-7	X		X	X	X			
1	**Dual Channel Stabilized Analyzer	Ludlum	2218 Probe 44-23 Probe 43-2 Probe 44-7	X		X	X	X			
2	ReGe (25%)	Canberra		X				X			
~~1~~	~~GeLi (10%)~~	~~Canberra~~		~~X~~				~~X~~			
2	MCA	Canberra	Genie 2000	X							
1	4x4 NaI	**						X			
1	Alpha Spectrometer	Canberra **	7401			X					

TABLE 10-1

Radiation Evaluation Equipment (Vermont Department of Health Laboratory)

Quantity	Type	Manufacturer	Model No.	Lab	Field	Radiation Evaluated					
						Alpha	Beta	Gamma	X-Ray	Neutron	Micro-wave
1	Liquid Scintillation Counter	Packard	1900TR	X		X	X				
1	Alpha/Beta Proportional Counter	Canberra/ Tennelec	LB4110	X		X	X				
2	Alpha/Beta Proportional Counter	Canberra	2404F	X		X	X				
** Currently not in use											

TABLE 10-2

Laboratory Analysis Capability (State of Vermont)

Medium	Analysis	Analysis Time (hrs.)	State Involved in Emergency		State Not Involved in Emergency	
			8-hr day	24-hr day	8-hr day	24-hr day
Milk, Vegetation, Water, Foods, Charcoal Cartridges	Gamma Scan	7 - Normal			2	6
		0.08 - Emergency	24	72		

Water, Precipitation	Gross Alpha	8 - Normal			1	3
	Gross Beta	1 - Emergency	16	48		
Water, Precipitation	Tritium	4.2 - Normal			2	6
		1 - Emergency	8	24		
Air Filter	Gross Alpha	0.5 - Normal			16	48
	Gross Beta	0.08 - Emergency	24	72		
Note: Assumption is made that contaminated samples will not need as long a counting time as under normal, non-emergency conditions.						

E. Radiological Exposure Control and Radiological Surveillance

Exposure limits for emergency workers set forth in EPA 400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents", are presented in Table 10-3.

Radiological surveillance of emergency workers, equipment, and vehicles used in the Post Plume Phase is detailed in the Radiological Sampling Teams Procedures.

TABLE 10-3
Emergency Worker Exposure Limits

It is the State of Vermont=s Policy to limit exposure to the same standards as routine occupational radiation exposure:
Not to exceed 5 REM whole body per year
In the event it becomes necessary to exceed these limits, the Commissioner or designee, Vermont Department of Health (acting as the Health Services Coordinator) may authorize

the following Emergency Worker Exposure Limits on a case-by-case basis.		
Dose limit [(a)] (rem)	Activity	Condition
5	all	
10	protecting valuable property	lower dose not practicable
25	life saving or protection of large populations	lower dose not practicable
>25	life saving or protection of large populations	only on a voluntary basis to persons fully aware of the risks involved

[(a)]Limits correspond to EPA limits set forth in EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (see Chapters 3 and 4). Sum of external effective dose equivalent and committed effective dose equivalent to non-pregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value and doses to any other organ (including skin and body extremities) to ten times the listed value. These limits apply to all doses from an incident, except those received in un restricted areas as members of the public during the intermediate phase of the incident

F. Dose Assessment

The Health Services Coordinator (SSF 8 Lead), assisted by the Radiological Health Advisor, will direct accident assessment activities.

(1) Plume Phase (Plume Exposure Pathway)

The Public Service Coordinator and Nuclear Engineer will provide information on plant conditions, including actual or potential release conditions.

The Dose Assessment Team will use this information, plus weather conditions, data available from the licensee and state field monitoring teams or other relevant and appropriate information identified by the Radiological Health Advisor or designee to perform continual off-site dose projections as warranted for all phases of an incident.

A variety of tools and methods deemed appropriate by the Radiological Health Advisor including, but not limited to, computer-based programs such as VY METPAC, may be used by the Dose Assessment Team in the assessment of potential off-site dose consequences.

If available, field team results may be compared with dose projections generated by the Dose Assessment Team and/or licensee in order to ground truth modeled estimates.

Dose projections may be compared with relevant Protective Action Guides identified by the Radiological Health Advisor (such as those described in Section 11) in order to determine appropriate protective actions and evaluate potential off-site consequences.

If requested, under the supervision of the Radiological Health Advisor, the Dose Assessment Team may also compare projected results with those generated by a federal partner.

Dose Assessment Team work products will be provided to the Radiological Health Advisor and/or Health Services Coordinator or designee as warranted or requested.

The State will continuously evaluate plant conditions and dose assessment results to determine if additional protective actions are necessary.

(2) Ingestion Phase

(a) Relocation, Re-Entry, Return and Recovery

Dose assessment activities during Relocation, Re-Entry, Return and Recovery is described in Section 16 and detailed in the Implementing Procedure for the Dose Assessment Team.

(b) Ingestion Pathway

To facilitate rapid decision-making regarding contaminated human food, milk and water, radionuclide specific Derived Intervention Levels may be employed.

A Derived Intervention Level (DIL) corresponds to the concentration of a particular radionuclide or group of radionuclides in human food throughout the relevant period of time that could result in an individual receiving a dose equal to a predetermined level referred to as a Protective Action Guide (PAG). DILs establish limits on the level of activity of radionuclides permitted in food for human consumption.

For example, FDA 1998 has recommended the following PAGs for use in the planning for protective actions related to ingestion of potentially contaminated human food:

0.5 rem Committed Effective Dose Equivalent (CEDE) **or** 5 rem Committed Dose Equivalent (CDE) to an individual tissue or organ, whichever is the more limiting.

FDA has calculated DILs that correspond to these specific dose limits for the five radionuclide groups expected to deliver the major portion of the radiation dose from ingestion during the first year following a nuclear reactor accident. For each group of radionuclides, DILs were derived for six age groups: 3months; 1 year; 5 years; 10 years; 15 years and adult (> 17 years). The most restrictive value calculated for each group of radionuclides became the recommended FDA DIL for that group. The DIL for each radionuclide (or group) is applied independently of the other. These FDA DILs are presented in Table 10-4 as well as in the Implementing Procedure for the Dose Assessment Team.

This FDA approach or other method and/or Protective Action Guides deemed relevant and appropriate by the Radiological Health Advisor will be employed by the State of Vermont in the assessment of human consumables such as milk, water and other foods.

G. Technical Assistance

Vermont is a small state geographically, in population, and in State resources. It is prudent to anticipate a situation where some of the limited number of dose assessment personnel, field monitoring team personnel, or other technical personnel might become sick or otherwise not be available. In this event, the State of Vermont would contact other states to get trained and experienced personnel to come to Vermont to fill in. In the dose assessment area Vermont could request that either New Hampshire or Massachusetts dose assessment teams provide processed and analyzed data to Vermont=s State EOC as needed until sufficient dose assessment personnel from other states or a Federal Agency were able to arrive at the Vermont State EOC and bring the dose assessment team up to full capability. Vermont would use one or more of the following mechanisms to accomplish this:

(1) Emergency Management Assistance Compact (EMAC)

(2) New England Compact on Radiological Health Protection

(3) Special Memoranda of Understanding with nearby states

(4) Nuclear/Radiological Incident Annex to the National Response Plan

TABLE 10-4

FDA Recommended Derived Intervention Level (DIL) or Criterion for Each Radionuclide Group [(a) (b)]

All Components of the Diet

Radionuclide Group	(Bq/kg)	(pCi/kg)	Based on most sensitive sub-population
Sr-90	160	4300	15 years
I-131	170	4600	1 year
Cs-134 + Cs-137	1200	32000	Adult
Pu-238 + Pu-239 + Am-241	2	54	3 months
Ru-103 + Ru-106 [(c)]	$\frac{C_3}{6800} + \frac{C_6}{450} < 1$ Bq/kg	$\frac{C_3}{180{,}000} + \frac{C_6}{12{,}000} < 1$ pCi/kg	3 months

Note: FDA Protective Action Guides for the Ingestion Pathway 0.5 rem committed effective dose equivalent **OR** 5 rem committed dose equivalent to an individual issue or organ, whichever is more limiting.

(a) The DIL for each radionuclide group (except for Ru-103 + Ru-106) is applied independently. Each DIL applies to the sum of the concentrations of the radionuclides in the group at the time of measurement.

(b) Applicable to foods as prepared for consumption. For dried or concentrated products such as powdered milk or concentrated juices, adjust by a factor appropriate to reconstitution, and assume the reconstitution water is not contaminated. For spices, which are consumed in very small quantities, use a dilution factor of 10.

(c) Due to the large difference in DILs for Ru-103 and Ru-106, the individual concentrations of Ru-103 and Ru-106 are divided by their respective DILs and then summed. The sum must be less than one. C_3 and C_6 are the concentrations, at the time of measurement, for Ru-103 and Ru-106, respectively.

Reference USFDA, Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendation for State & Local Agencies, August 18, 1998.

TABLE 10-5

Annual Dietary Intakes (kg/y) [a]

Food Class	Age Group (years)									
	<1	1	38480	38638	15-19	20-24	25-29	30-39	40-59	60 &up
Dairy	208	153	180	186	167	112	98.2	86.4	80.8	90.6
(Fresh Milk)[b]	-99	-123	-163	-167	-148	-97	-79	-67	-62	-70
Egg	1.8	7.2	6.2	7	9.1	10.3	10.2	11	11.4	10.5
Meat	17	34	46.9	58.4	69.2	71.2	72.6	73.4	70.7	56.3
Fish	0.3	2.5	4	4.9	6.1	6.8	7.6	7.1	8	6.3
Produce	57	60	82.3	96	97.1	91.4	99.1	102	115	121
Grain	20	58	79	90.6	89.4	77.3	78.4	73.7	70.2	67.1
Beverage	112	271	314	374	453	542	559	599	632	565
(Tap Water)	-62	-159	-190	-226	-243	-240	-226	-232	-268	
Miscellaneous	2	9.3	13.3	14.8	13.9	10.9	11.9	12.5	13.3	13
Total Annual Intake (kg/y)	418	594	726	832	905	922	937	965	1001	930

(a) Computed from daily intake values in grams per day provided in (EPA 1984b). The total annual intakes are rounded to nearest 1 kg/y.

(b) Fresh milk is included in the dairy entry, and tap water used for drinking is included in the beverage entry. The total annual intakes (kg/y) for fresh milk and tap water are also each given separately in parentheses.

11. PROTECTIVE ACTION GUIDES (PAGs)

Following a radiological incident involving a release of radioactive material to the environment, there may be a need for actions to protect the general public from radiation exposure. The Environmental Protection Agency (EPA) has developed Protective Action Guides (PAGs) for radiological emergency response planning. The guides, as well as the scientific basis for selecting them, are published in EPA 400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," revised 1992. The PAGs are numerical projected doses that act as trigger points to initiate protective actions.

Table 11-1 provides a summary of the EPA PAGs that may be used to initiate protective actions within the Plume Exposure Pathway (10-mile EPZ). Other factors that may be considered to initiate protective actions include but are not limited to: plant conditions, utility protective action recommendations, dose assessment results, sampling results, and other off-site-specific conditions (e.g., presence of severe weather, competing disaster and local physical factors). The EPA PAGs presented are expressed in terms of Total Effective Dose Equivalent (TEDE) resulting from exposure to external sources and the committed effective dose equivalent from internal exposures. Supplemental guidance is also provided in terms of Committed Dose Equivalent (CDE) to the thyroid. This guidance updates and replaces previous values that were expressed as whole body and thyroid dose.

In summary, these guidelines establish the basis upon which protective action(s) may be taken after evaluation of any radiological incident by the Health Services Coordinator. Protective actions will be directed only after all factors (benefits derived versus risks) involved have been evaluated. The Health Services Coordinator along with the Radiological Health Advisor, Public Service Coordinator, and the SEOC Manager will determine if protective actions are necessary. Any recommended protective actions will be provided to the Governor for approval. Protective actions will be based on the following considerations: plant conditions, utility protective action recommendations, dose assessment results, sampling results, off-site-specific conditions, and a comparison of the projected doses with the Environmental Protection Agency Protective Action Guides or other values deemed relevant and appropriate by the Radiological Health Advisor.

The Food and Drug Administration has developed Protective Action Guides related to indirect exposure via the Ingestion Exposure Pathway. These values are noted in Section 10 and detailed in the Implementing Procedure for the Dose Assessment Team.

The authorities and responsibilities for recommending and implementing protective actions, as well as a list of various potential protective actions, are described in Section 12.

TABLE 11-1

EPA Recommended Protective Action Guides (PAGs) for Plume Exposure Pathway

PAG (Projected Dose to the Population)

Limits
Total Effective Dose Equivalent (TEDE) **<1 rem**
Committed Dose Equivalent (CDE) to the Thyroid **<5 rem**

Recommended Actions
No planned protective action. State may issue an advisory to seek shelter and await further instructions. Monitor environmental radiation levels.

Comments
No specific minimum level is established for initiation of sheltering. Sheltering should be considered at projected doses below PAGs (1 rem TEDE); however, implementing sheltering at very low levels may not be reasonable (e.g., <0.1 rem TEDE).

PAG (Projected Dose to the Population)

Total Effective Dose Equivalent (TEDE) **≥ 1 rem**
Committed Dose Equivalent (CDE) to the Thyroid **≥ 5 rem**

Recommended Actions
Conduct evacuation (or, some situations, sheltering) of populations in the predetermined area. Monitor environmental radiation levels and adjust area for evacuation or sheltering based on these levels. Control access.

Comments
Sheltering would be an alternative if evacuation is not immediately possible. Sheltering also may be the preferred protective action when it will provide protection equal to or greater than evacuation due to the nature of release composition from plant or other off-site-specific conditions (e.g., presence of severe weather, competing disaster and local physical factors which impede evacuation).

Source: EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, Revised 1992, Section 2.3, Page 2-4.

12. PROTECTIVE AND PRECAUTIONARY ACTIONS

Vermont has taken the position that there are too many variables in a potential nuclear power plant accident to pre-plan all actions prior to the accident. A host of likely actions have been thought out and procedures developed to implement them. Except for two specific scenarios noted below, the decision about which action(s) to implement will be made after the EOCs have been staffed and activated and initial accident data has been reviewed.

To assist decision-makers, various potential actions have been listed in the appropriate emergency classification levels in the Vermont Precautionary and Protective Actions list. To be effective, this list has to be flexible, and may be revised as conditions change. The version current at the time of printing this plan is shown as Table12-1. This list is used in conjunction with individual procedures.

The first scenario that is an exception to the above is the Unusual Event that either has a security action level or for which the cause has not yet ruled out sabotage or security issues. In this scenario a local law enforcement Command Post (CP) will be established. One location at the VY Corporate Office has been established but other locations may be considered depending upon circumstance. The local Law Enforcement CP may have law enforcement personnel from various utility, local, state, and federal agencies. The local Law Enforcement CP will coordinate decisions with the State EOC who will keep local EOCs informed of those decisions. This information will be transmitted through a more secure means. EOCs will be staffed to a level consistent with the threat. A security event could escalate to a higher emergency classification and the Law Enforcement CP would continue to operate and keep the State EOC informed.

The second scenario that is an exception to the above is the General Emergency Fast-Breaker. The three states with portions of the Vermont Yankee ten-mile Emergency Planning Zone (EPZ), Massachusetts, New Hampshire, and Vermont have a long-standing agreement that in a General Emergency Fast-Breaker that each state will immediately implement plant recommendations and once the various emergency facilities are staffed and activated and accident data has been received additional protective actions may be implemented. Some of the more common precautionary or protective actions are described in more detail below. It should be noted that whether a particular action is called precautionary or protective has to do with the likelihood of a particular plant condition occurring. For example, if a General Emergency has been declared and a release is anticipated, an evacuation might be ordered as a protective action. On the other hand if a Site Area Emergency had been declared and it was unclear whether the situation might escalate, certain segments of the population might be transferred out of the ten-mile EPZ as a precautionary action. Precautionary actions are typically taken when the future situation is unclear and decision-makers are concerned that there will not be enough time to take action once the situation is

clarified with additional data or escalating events.

TABLE 12 - 1
Vermont Precautionary and Protective Actions

UNUSUAL EVENT	
1.	If security EAL or unknown cause establish law enforcement CP
	A. Activate local EOCs?
	B. Limited shelter or evacuation
	C. Law enforcement actions decided locally
	D. Public information provided at law enforcement CP
	E. Assistance provided as requested
2.	If known cause?
	A. Gather information
	B. Provide public information jointly with VY, New Hampshire and Massachusetts
ALERT	
1.	Complete activation of all facilities to include full or partial staffing.
2.	Phase I activation of BFUHS Reception Center (prepare to receive precautionary transfer of 3500 +/- school children and 1000 +/- children from childcare facilities and private schools)
3.	Early Assembly of School Buses at all Emergency Planning Zone (EPZ) schools and licensed childcare facilities [1] (give priority to Vernon
4.	Staging Area planning in the event of a precautionary transfer or evacuation
5.	Transportation planning and staging of buses, vans and ambulances in the event of a precautionary transfer of health care facilities [1] (give priority to Vernon)
6.	Health care facility patient transfer planning in the event of a precautionary transfer or evacuation
7.	Early Traffic and Access Control planning in the event of an evacuation.
8.	Supporting EAS Message(s) (to facilitate NH and/or MA issue an EAS message if

TABLE 12 - 1
Vermont Precautionary and Protective Actions

requested)
9. Consider having the Governor declare a State of Emergency and issue a special news advisory
10. Discuss activities listed below for Site Area Emergency and General Emergency
[1]Reception Center notified of Early Assembly of School Buses & Precautionary Transfer of School Children from all EPZ Schools.
SITE AREA EMERGENCY (Ensure that previous actions have been implemented if appropriate)
1. Initial SITE AREA EMERGENCY EAS message A. Precautionary Transfer of school children from all EPZ schools and childcare facilities[1] *Note: The decision to move the children is predicated upon having the buses in place at the schools* (the EAS message should be sent only after the decision has been transmitted to the towns and schools) B. Advise farmers to shelter milk producing animals and place them on stored feed and water C. Requesting visitors in State Parks and recreation areas within the EPZ to leave D. Advising boaters to get off waterways in the EPZ E. Advise transients to leave the EPZ
2. Healthcare Facility Precautionary Transfer EAS message: Issued when transportation resources have patients on board and are moving toward host facilities
3. Special News Advisory: The Governor of Vermont declares a State of Emergency (if not done above)(needed to activate and deploy the VT National Guard)
4. Subsequent SAE Protective Actions EAS messages: A. Whether to shelter some or all towns in the EPZ based upon plant status and weather conditions B. Whether to evacuate some or all towns in the EPZ based upon plant status and weather conditions
5. Phase II activation of the BFUHS Reception Centers (prepare to receive parents of children in precautionary transfer and 5000 + evacuees if there is an evacuation)
6. Contingency planning continued: A. Transportation planning in the event of an evacuation

TABLE 12 - 1
Vermont Precautionary and Protective Actions

B. Healthcare facility patient transfer planning in the event of an evacuation if not previously transferred C. Traffic and Access Control planning in the event of an evacuation D. Staging Area planning in the event of an evacuation if not already activated E. Assistance that may be required from other States or the Federal Government F. Potassium Iodide for emergency workers and the general public
7. Supporting EAS message(s) (to facilitate NH and/or MA to issue an EAS message)
8. Locally requested protective actions EAS message (if approved)
9. Discuss activities listed below for General Emergency
[1]Reception Center notified of Early Assembly of School Buses & Precautionary Transfer of School Children from all EPZ Schools.
GENERAL EMERGENCY (GE) Ensure the previous actions have been implemented
1. Initial GE EAS message: Implement Vermont Yankee (VY) recommendations immediately if not already in place
2. Potassium Iodide for emergency workers and the general public
3. Subsequent GE protective actions EAS message: Whether to shelter or evacuate some or all towns in the EPZ beyond plant recommendations
4. Activate traffic and access control plans as required
5. Supporting EAS message(s) (to facilitate NH and/or MA to issue an EAS message)
6. Locally requested protective actions EAS message (if approved)
7. Assist families and individuals in re-unification (coordination between all three reception centers, Westminster, VT, Keene, NH, and Greenfield, MA)
8. Establish and operate Emergency Worker Monitoring and Decontamination Station(s)
POST PLUME (Relocation and Ingestion Pathway – Ensure that previous actions have been implemented)
1. Establishing a restricted zone

TABLE 12 - 1
Vermont Precautionary and Protective Actions

A. Establish a temporary restricted zone as soon as a town is sheltered or evacuated. B. Establish a more permanent restricted zone as radiological data is developed
2. Authorizing Are-entry@ for permitted purposes for limited periods of time
3. Authorizing Areturn@ for towns or portions of towns that are deemed safe to reoccupy on a permanent basis
4. Authorizing Arelocation@ of persons living in an area that was not Aevacuated@ and may not even be in the ten-mile EPZ
5. Assist in the provision of compensation and reimbursement to: A. Individuals B. Businesses C. Government (local and state)
6. Request Federal resources. A. Request a FRMAC B. Request a Joint Field Office (JFO) (may be a tri-state JFO) C. Prepare for the FRMAC Advance Party Meeting (1) Complete state portion of the Advance Party Check List (2) Coordinate and negotiate with New Hampshire and Massachusetts D. Send representatives to the FRMAC Advance Party Meeting E. Send representatives to the FRMAC F. Assist the FRMAC establishing itself and in providing resources to Vermont
7. Determining proper disposition of food, water, crops, and animals
8. Planning the restoration of vital facilities and services such as: A. Medical facilities B. Utilities C. Roads and streets D. Schools E. Intermediate term housing for relocated persons
9. Planning the long term recovery of contaminated areas
10. Issuing news releases and conducting press conferences on the above and other relevant issues

A. Protective Actions for Direct Exposure in the Plume Exposure Pathway Emergency Planning Zone

The following section describes the protective actions that may be implemented by the State of Vermont in the event of an emergency at Vermont Yankee Nuclear Power Station.

(1) Precautionary Actions Concerning School Children

Under certain circumstances, the state may decide to implement precautionary actions at the **Alert** or **Site Area Emergency** levels. Children may be significantly more vulnerable to adverse radiation as compared to adults. Therefore where children are in groups such as in public schools, private schools, childcare facilities, it may be appropriate and feasible to transfer them out of the EPZ.

The decision whether or not to implement precautionary actions and at what level shall be based upon considerations such as the nature of the emergency (plant conditions, i.e., safety systems related event) and the number and location of people impacted.

(a) Early Assembly of School Buses

As a precaution, school buses may be mobilized and pre-staged at respective schools as early as the Alert level. This precaution taken early in the emergency would provide additional time for implementation and would ease road congestion if an evacuation of residents is needed later in the emergency.

(b) Precautionary Transfer of School Children

As a precaution, Vermont Division of Emergency Management and Homeland Security, upon the advice of the Vermont Department of Health, may direct the transfer of school children to include public schools, private schools and child care centers to the Bellows Falls Union High School Reception Center, or other previously identified location, as appropriate. This precautionary action, if directed by the Governor, may occur as early as the Alert level, depending on the nature of the event. Should this occur, EAS messages or news advisories would inform parents that the precautionary action was being implemented. Because there could be as many as 3,800 children from infants to high school age, there will not be enough room at the Reception Center. Therefore if transfer of all schools and child care centers is implemented,

many children will be sent to congregate care facilities in nearby towns. Refer to the current Reception Center Plan for further detail.

(2) Precautionary Actions Concerning Health Care Facilities

There are two (2) hospitals, Five (5) nursing homes and assisted living facilities in the Emergency Planning Zone (EPZ) with approximately 450 patients. Four (4) of these are in Brattleboro and one (1) in Vernon. It has been determined that it may take several hours to ascertain the number of transportation resources required, get these resources to a staging area, and the time required to find appropriate facilities to which patients may be sent, Therefore, if the best course of action is to move some or all of the patients, it should be initiated early on in the emergency. Sheltering-in-place may be the best action for most of the patients but there can be significant staffing issues.

(3) Sheltering

Sheltering refers to the use of readily available nearby structures for protection against exposure to an airborne plume. The determination to shelter is based on an evaluation of projected doses, estimated plume arrival times, plus factors such as release duration and hazardous weather conditions. Sheltering involves remaining inside, closing all doors and windows, turning off ventilation systems that draw in outside air and sealing, to the extent possible, all other access to the outdoor air. Sheltering can be implemented rapidly with no inherent risks such as road travel and is the preferred protective action to evacuation when it provides equal or greater protection. Sheltering may be an alternative if evacuation is not immediately possible.

Travel conditions that would present an extreme hazard may prompt off-site officials to initially shelter rather than evacuate the nearby population until conditions improve. Shelter may also be the appropriate initial protective action for transit-dependent persons, who should be advised to remain indoors until transportation resources arrive, if possible. In addition, shelter may be the appropriate protective action for controlled releases of radioactive material from the containment if there is assurance that the release is short term (puff release) and the area near the plant cannot be evacuated before the plume arrives.

The composition and thickness of the wall materials, size of the structure, and number of stories overhead all contribute towards reduced exposure to radiation. Therefore, shelter should be sought in a central location within the structure that affords the most protection. Representative shielding factors

are shown in Tables 12-2 and 12-3.

TABLE 12 - 2

Representative Shielding Factors from a Gamma Cloud Source

Structure or Location	Shielding Factor[a]	Representative Range
Outside	1.0	-
Vehicles	1.0	-
Wood-Frame House[b] (No Basement)	0.9	-
Basement of Wood House	0.6	0.1 to 0.7[c]
Masonry House (No Basement)	0.6	0.4 to 0.7[c]
Basement of Masonry House	0.4	0.1 to 0.5[c]
Large Office or Industrial Building	0.2	0.1 to 0.3[c,d]

(a) The ratio of the interior dose to the exterior dose.
(b) A wood frame house with brick or stone veneer is approximately equivalent to a masonry house for shielding purposes.
(c) This range is mainly due to different wall materials and different geometries.
(d) The reduction factor depends on where the personnel are located within the building, e.g., the basement or an inside room.

Source: NUREG-1062, Table 11.b, Page 28, and EGG-1183-1670, December 1975.

TABLE 12 – 3

Representative Shielding Factors for Surface Deposition

Structure or Location	Representative Shielding Factor[a]
Cars on Fully Contaminated Road	.50
Cars on Fully Decontaminated 50 ft. Road	.25
Trains	.40
One- and Two-Story Wood-Frame House (No Basement)	.40[b]
One- and Two-Story Block and Brick House (No Basement)	.20[b]
House Basement, One or Two Walls Fully Exposed	.10[b]
One Story, Less Than 2 Feet of Basement, Walls Exposed	.05[b]

Two Stories, Less Than 2 Feet of Basement, Walls Exposed	.03[b]
Three- or Four-Story Structures, 5,000 to 10,000 sq. ft. per Floor:	
First and Second Floors	.05[b]
Basement	.01[b]
Multi-Story Structures, >10,000 sq. ft. per Floor:	
Upper Floors	.01[b]
Basement	.005[b]

(a) The ratio of the interior dose to the exterior dose.
(b) Away from doors and windows.

Source: NUREG-1062 Table 11.a, Page 26, and EGG-1183-1670, December 1975

Upon the order of the Governor to shelter, instructions will be provided to the public over the EAS.

(4) Ingestion of Potassium Iodide (KI)

Vermont has adopted guidance developed by the U.S. Food and Drug Administration and presented in their document AGuidance - Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies, November 2001". Future guidance by FDA may be adopted as it is issued.

Potassium iodide (KI) has been determined by the FDA to be a safe and effective means by which to prevent radioactive iodine uptake by the thyroid gland and reduce the risk of thyroid disease in the event of a radiation emergency. The non-radioactive KI saturates (fills up) the thyroid gland. For as long as the thyroid gland is saturated with non-radioactive KI, it will not take up (incorporate) any radioactive iodine to which an individual may be exposed.

It is important to note that KI provides protection to only one gland (thyroid) from only one type of radiation exposure (radioactive iodine). Other emergency actions such as evacuation, sheltering, or restricting the use of certain foodstuffs, milk, water, and animal feeds are designed to minimize exposure from all radiation sources and should be complied with as instructed by appropriate officials.

The State of Vermont purchased 65 milligram dose pills and liquid KI, and distributed them to schools and childcare facilities that accepted them.

Vermont has received a supply of potassium iodide from the Nuclear Regulatory Commission (NRC) for pre-emergency distribution to the general

public. KI is being distributed in the Vermont area of the 10-mile EPZ around the Entergy Nuclear Vermont Yankee Power Plant in Vernon, Vermont, to those individuals who voluntarily request it. Concurrent with such pre-emergency distribution, individuals will receive full information on the risk and benefits, proper dosage, medical contraindications, and the importance of following emergency preparedness directives. The major emphasis is to distribute KI to most of the general public prior to any emergency.

A summary of FDA=s recommended dosage chart (see Table 12-4) is shown below. As a practical matter, it may not be possible to quantify the thyroid exposure from inhaled radioiodines at the time of the emergency. The Health Services Coordinator (SSF 8 Lead) at the State EOC may, lacking specific predicted thyroid exposure, recommend the use of KI by individuals possibly exposed to a released plume presumed to contain radioiodines.

The Health Services Coordinator (SSF 8 Lead) and the Radiological Health Advisor who will be advising the Health Services Coordinator may use information from sources such as the Emergency Response Data System (ERDS) and/or dose projections from the Dose Assessment Team or other relevant and appropriate source identified by the Radiological Health Advisor to determine whether to advise emergency workers, institutionalized individuals and members of the general public who have received pre-emergency distribution of KI near or down wind from the plant to ingest KI. Emergency workers and institutionalized individuals will be notified through the RERP communications system. The general public will be informed by either EAS message or news advisory. Town EOCs will be informed of the decision in a timely manner.

TABLE 12- 4

Recommended Doses of Potassium Iodide

Risk Group	KI Dose (milligrams)	# of 130 mg Tablets	# of 65 mg Tablets
Adults over 18 years	130	1	2
Pregnant or lactating women	130	1	2
Children over 3 through 18 years *	65	1/2	1
Children over 1 month through 3 years	32	1/4	1/2
Birth through 1 month	16	1/8	1/4

***** *Adolescents approaching adult size (equal or greater than 154 pounds) should receive the full adult dose of 130 mg.*

Note: *The protective effect of KI lasts approximately 24 hours. For optimal prophylaxis one should therefore be dosed daily until a risk of significant exposure to radioiodines from inhalation or ingestion no longer exists.*

(5) Evacuation

The preferred initial action to protect the public from a severe reactor accident is to evacuate immediately about 2 miles in all directions from the plant and about 5 miles downwind from the plant, unless other conditions make evacuation dangerous.

The primary objective of evacuation is to avoid exposure to airborne radioactive materials by moving individuals away from the path of the plume. The effectiveness of evacuation depends on various factors such as the time required to initiate, implement, and complete the actions, and the nature of the incident. Advanced planning is essential to identify potential problems that may occur in an evacuation.

Evacuation will be implemented on a town-by-town basis. Upon the order of the Governor to evacuate, instructions will be provided to the public over the EAS. The primary means of evacuation will be by private vehicle. Local emergency response organizations will provide assistance with supplementary transportation. Each EPZ town has provisions for evacuating residents, including special needs individuals, institutions, and

transportation-dependent individuals. Evacuation of school children is addressed in school-specific plans. The state and EPZ towns have designated routes to be used during an evacuation. These routes are described in Section 13.

(6) Access Control

Access control is implemented in conjunction with sheltering and evacuation. Access control restricts individuals from entering an area where they could be exposed to radiation. Access control clears traffic from roads in designated areas and provides security in evacuated areas. Once an area is evacuated, all individuals with the exception of emergency workers and authorized individuals will be prohibited from entering into the area until off-site radiological assessments confirm the levels of radioactivity.

Access control is both a state and local responsibility. Access control is discussed further in Section 14.

B. Protective Actions for Exposure to Deposited Material (Relocation, Re-Entry and Return)

Protective actions for limiting the long-term exposure of the public to deposited radioactive materials have been developed. These protective actions may be implemented as may be necessary after the release of radioactive material has been brought under control. Actions to be considered at this time include Relocation, Re-entry, and Return. These actions are described in Section 16.

C. Protective Actions for Indirect Exposure in the Ingestion Exposure Pathway Emergency Planning Zone

(1) Precautionary Actions

At a Site Area Emergency or General Emergency, the Health Services Coordinator (SSF 8 Lead), or Radiological Health Advisor, may recommend the precautionary protective action of sheltering and placing milk producing animals within a 10-mile radius of the plant on stored feed and protected water supplies. This precautionary protective action may be extended to the full ingestion pathway zone if necessary based on projected deposition levels, plant conditions, and other relevant information.

(2) Food, Milk, and Water Control

Protective actions for indirect exposure through the ingestion pathway are

implemented to reduce the potential for the ingestion of accidentally contaminated foodstuffs and milk. Water may also be a consideration. Potential protective actions for the ingestion pathway include:

(a) Milk

The most critical exposure pathway after a release from a nuclear power plant is assumed to be the ingestion of milk (pasture to lactating animal to milk to processor to distributor to consumer). This assumption is based on the potential effects of radionuclides on infants, the most critical segment of the population for iodine-131. Preventing contamination of milk is an important element of ingestion pathway protective actions. Protective actions exist for controlling the consumption of contaminated milk.

Protective actions involve protecting animal feed and ordering dairy farmers to use only stored feed rather than letting the herd graze on contaminated pasture. Table 12-5 presents the potential efficacy of various protective actions applicable to the pasture to milk to human pathway. However, if the milk activity exceeds a level of activity estimated to correspond to a predetermined dose limit identified by the Radiological Health Advisor, such as the FDA DILs described in Section 10.F.b. the milk may be destroyed.

As recommended by the Vermont Department of Health, control of milk will be implemented by the Vermont Agency of Agriculture, Food and Markets. A list of dairy farm owners/operators is maintained by this Agency.

(b) Water Control

Water sources of immediate concern include water supplies, reservoirs and water treatment plants.

Water supplies that receive a major portion of their water from the surrounding watershed will be the focus of protective actions for water control. Reservoirs filled by pumping from flowing streams can be protected by prohibiting pumping when runoff causes an increase in contamination.

As necessary, the Vermont Department of Health and the Agency of Natural Resources will direct the control and use of water from contaminated public surface water supplies within the ingestion pathway and arrange for alternate water supplies.

Wells and groundwater supplies are not likely to be contaminated but will be tested if they are muddy or otherwise suspected of having received runoff from contaminated soils.

Neither FDA nor EPA has released a unique methodology for the evaluation of drinking water. The Vermont Department of Health may employ the FDA DIL method previously described or other method deemed appropriate by the Radiological Health Advisor in the evaluation of potentially contaminated drinking water.

TABLE 12-5

Actions Applicable to the Pasture to Milk to Human Pathway

Action	Radionuclide(s) for Which Protective Action is Applicable	Effectiveness	Safety	Practicality (Effort Required)	
Applicable to Cattle					
Provide Alternate Source of Uncontaminated Animal Feed	131_IN 90_{Sr}N 89_{Sr}N 137_{Cs}	(+)[a]	(+)	(+)	Good
Add Stable Iodine to Cattle Ration	131_I	Marginal[b]	Some Hazard	(+)	
Add Stable Calcium to Cattle Ration	89_{Sr}N 90_{Sr}	Marginal	Some Hazard	(+)	
Add Binders to Cattle Ration	137_{Cs}N 89_{Sr}N 90_{Sr}	Marginal	Questionable	(+)	
Substitute Sources of Uncontaminated Water	137_{Cs}N 89_{Sr}N 90_{Sr}	(+)	(+)	(+)[c]	
Applicable to Milk					
Condemnation of Milk	131_IN 89_{Sr}N 90_{Sr}N	(+)	(+)	(+)[d]	Good
Divert Fresh Milk to Processed Milk Products	131_IN 89_{Sr}	(+)	(+)	(+)	Good
Process Fresh - Store	90_{Sr}N 137_{Cs}	Marginal	Questionable	(+)	

Process Fresh - Store	$131_I N$	(+)	(+)	(+)	Good

(a) (+): 90% effective
(b) Marginal: Less than 90% effective
(c) Depends on availability
(d) Somewhat dependent on volume

(Reference: HHS Publication FDA 82-8196)

TABLE 12-6

Actions Applicable to Soil

Action (Applicable to Soil)	Radionuclide(s) for Which Protective Action is Applicable	Effectiveness	Safety	Practically (Effort Required) [(a)]
Soil Management – Minimum Tillage	90_{Sr} [(b)]	Poor to Fair	Not Applicable	Good
Deep Plowing with Root Inhibition	90_{Sr}	Good to Fair	Not Applicable	Poor
Irrigation & Leaching	90_{Sr}	Poor	Not Applicable	Good
Liming & Fertilizing	90_{Sr}	Poor to Fair	Not Applicable	Good
Removing Contaminated Surface Crops	90_{Sr}	Most Poor	Not Applicable	Poor to Fair
Removal of Soil Surface Contamination				
Warm Weather with Vegetation Cover	90_{Sr}	Good to Fair	Not Applicable	Poor

Cold Weather No Cover	90_{Sr}	Good to Poor	Not Applicable	Good to Poor

[(a)] Rating for reducing Sr-90: Good - 95% reduction
Fair - 75-95% reduction
Poor - 75% reduction

[(b)] Rating for effort required: Good - Not significantly more than normal field practice
Fair - Extra equipment or labor required
Poor - Requirement of equipment, materials, and labor

(Reference: HHS Publication FDA 82-8196)

(c) Other Food

This pathway involves the ingestion of fruits, vegetables and crops grown within the affected area, as well as the transporters, processors, and distributor of these products. Typically, this may involve small independent family farms that produce for themselves and distribute to the local market only, and large commercial farms, whose production is processed in many locations and delivered to consumers out of state. As the situation dictates, the Radiological Health Advisor may determine that it is appropriate to store nonperishable crops until the radioactivity has decayed or has been removed. Techniques such as canning and processing may be viable options for storing perishable crops until the radioactivity has decayed to within allowable limits. Table 12-7 presents some of this information. In the event that crops have been so heavily contaminated that preventive measures are determined to be ineffective, actions may be taken to prevent food from entering the market place.

The Agency of Agriculture will advise the Health Services Coordinator on the control of harvesting, sale of crops, and, if necessary, condemnation of contaminated foods, such as meat, meat products, poultry, and poultry products.

Lists of the commercial agricultural processing and distribution facilities in the ingestion pathway are maintained at the state EOC.

Maps for recording ingestion pathway data, including locations of key land use, agricultural facilities, water supply locations, and related information are maintained by the appropriate state agencies. These maps are used to identify areas where protective actions may be necessary and for recording general survey and environmental monitoring data.

Protective actions for indirect exposure in the ingestion pathway EPZ should remain in effect until concentrations are expected to remain less than the FDA 1998 recommended guidance values or other reasonable and appropriate comparison value(s) identified for use by the Radiological Health Advisor.

TABLE 12-7

Percent Reduction in Radioactive Contamination of Fruits and Vegetables by Processing

	STUDY 1 (60) - Normal Food Preparation for Freezing, Canning, or Dehydration				Study 2 (61)	Study 3 (62)
	Internal 90_{Sr}	Contamination[a] 137_{Cs}	External 90_{Sr}	Contamination[a] 137_{Cs}	Canning 90_{Sr}	Home Preparation 90_{Sr}
Spinach	64	88	92	95	22	--
Snap Beans	--	--	--	--	62	--
Carrots	--	--	--	--	19	19
Tomatoes	65	--	--	--	21	28
Broccoli	72	89	94	92	--	--
Peaches	~100	~100	~100	~100	50	--
Onions	--	--	--	--	--	37
Potatoes	--	--	--	--	--	24
Cabbage	--	--	--	--	--	55
Green Beans	--	--	--	--	--	36

a) Contamination on surface is referred to as external contamination.
Internal contamination is contamination of fleshy portion of product from surface deposition of radionuclide.

(Reference: HHS Publication FDA 82-8196)

D. Protective Action Decision Process for the Ingestion Pathway

The following discussion describes the decision process for ingestion pathway protective actions. To facilitate understanding, Figure 12-1, "Decision Criteria for

Recommended Ingestion Pathway Protective Actions," the process is described by means of a flow chart.

Decision No. 1 - If a Site Area Emergency or General Emergency has been declared at Vermont Yankee, implement precautionary actions. Precautionary actions are limited to sheltering milk producing animals within 10 miles and putting them on stored feed. The decision to implement this precautionary action out to 50 miles will be based upon projected deposition levels or upon assessment of the magnitude of the release, the status of plant conditions, and/or the accident prognosis.

Decision No. 2 - Determine if a radioactive release has occurred or is underway. If yes, proceed to Decision No. 3. IF NO, CONTINUE TO MONITOR THE SITUATION.

Decision No. 3 - Determine whether any PAG has been exceeded. This entails determining if any derived level listed in Table 12-7 has been exceeded. If so, the Governor will be advised by the Health Services Coordinator to order protective actions. If the derived intervention levels have not been exceeded, continue to monitor the need for protective actions.

E. Protective Action Decision Making and Implementation

The Health Services Coordinator (SSF 8 Lead), Public Service Coordinator (SSF 12 Lead), and the SEOC Manager are responsible for determining the need for protective actions (see Section 11). Protective actions will be based on the following considerations: plant conditions, utility protective action recommendations, dose assessment results, sampling results, off-site specific conditions, and a comparison of the projected doses with the Environmental Protection Agency Protective Action Guidelines and/or other information deemed relevant and appropriate by the Radiological Health Advisor. Any recommended protective actions will be provided to the Governor for approval. The State of Vermont will coordinate with the Commonwealth of Massachusetts and State of New Hampshire regarding the protective actions and to establish times for activation of the Public Notification System (i.e., weather alert radios, sirens, EAS). A protective action will not be considered final until tri-state coordination regarding activation of the Public Notification System is completed.

The local towns will be notified of the Governor's approved protective actions and the time established for activation of the Public Notification System. The public will then be notified at the established times.

The SEOC Manager is responsible for coordinating the implementation of protective actions. The local towns will implement the directed protective actions

in accordance with their plans and procedures. State resources are available to support the local response.

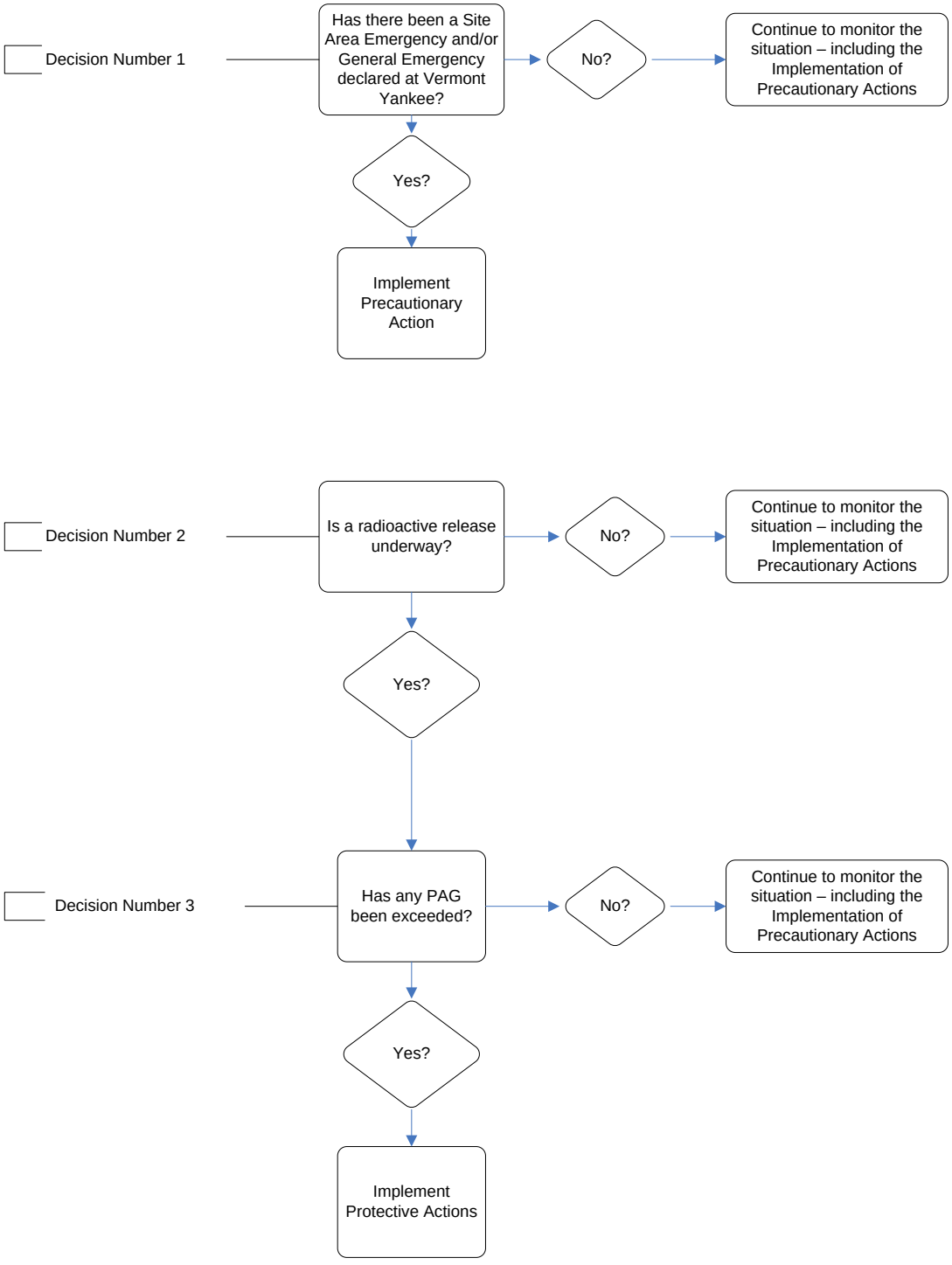


Figure 12-1
Decision Criteria for Recommended Ingestion Pathway Protective Actions

TABLE 12-8

FDA Recommended Derived Intervention Level (DIL) or Criterion for Each Radionuclide Group [(a) (b)]

All Components of the Diet

Radionuclide Group	(Bq/kg)	(pCi/kg)	Based on most sensitive sub-population
Sr-90	160	4300	15 years
I-131	170	4600	1 year
Cs-134 + Cs-137	1200	32000	Adult
Pu-238 + Pu-239 + Am-241	2	54	3 months
Ru-103 + Ru-106 [(c)]	$\frac{C_3}{6800} + \frac{C_6}{450} < 1$ Bq/kg	$\frac{C_3}{180{,}000} + \frac{C_6}{12{,}000} < 1$ pCi/kg	3 months

Note: FDA Protective Action Guides for the Ingestion Pathway 0.5 rem committed effective dose equivalent **OR** 5 rem committed dose equivalent to an individual issue or organ, whichever is more limiting.

(a) The DIL for each radionuclide group (except for Ru-103 + Ru-106) is applied independently. Each DIL applies to the sum of the concentrations of the radionuclides in the group at the time of measurement.

(b) Applicable to foods as prepared for consumption. For dried or concentrated products such as powdered milk or concentrated juices, adjust by a factor appropriate to reconstitution, and assume the reconstitution water is not contaminated. For spices, which are consumed in very small quantities, use a dilution factor of 10.

(c) Due to the large difference in DILs for Ru-103 and Ru-106, the individual concentrations of Ru-103 and Ru-106, the individual concentrations of Ru-103 and Ru-106 are divided by their respective DILs and then summed. The sum must be less than one. C_3 and C_6 are the concentrations, at the time of measurement, for Ru-103 and Ru-106, respectively.

Reference USFDA, Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendation for State & Local Agencies, August 18, 1998.

13. EVACUATION ROUTES

Primary evacuation routes have been pre-designated for each Emergency Planning Zone (EPZ) town to facilitate the orderly and safe movement of people. Private vehicles are the primary means of evacuation for both the permanent and transient populations. To be effective, evacuation routes must be able to accommodate abnormal traffic flow leaving an affected area. The evacuation routes were selected based on road conditions, road capacities, and the prevailing meteorological conditions. A complete analysis of the road network, projected traffic capacities, and the time estimates for evacuating the EPZ under various conditions are provided in the Vermont Yankee Nuclear Power Station Evacuation Time Estimate Study.

The State Police and Agency of Transportation are the two essential state agencies responsible for route selection and road maintenance. The primary evacuation routes are identified in Table 13-1. Population information is provided in Section 6. The evacuation routes and specific local procedures relating to evacuation (e.g., dealing with road impediments) are detailed in the local EPZ town plans and procedures.

Alternate evacuation routes are developed to solve some possible problem with one or more primary routes. It could be road construction, an accident that blocks a highway, wind direction at the time of a threatened release of radioactive material, the availability of a reception center, etc. Alternate routes may be printed in the annual Vermont Yankee Emergency Planning information (including the Calendar) or may be developed ad hoc by police and highway personnel to react to a specific unexpected problem. In either event these alternate routes will be described in either Emergency Alert System (EAS) messages or news advisories aired by the EAS station.

TABLE 13-1

Primary Evacuation Routes

Brattleboro	Follow any road or street to Exit 2 or Exit 3 (I-91), north on I-91 to Exit 5. Take U.S. Route 5 north to Bellows Falls Union High School. (U.S. Route 5 may be used in lieu of I-91 north).
Dummerston	Follow U.S. Route 5 north to Bellows Falls Union High School.
Guilford	Follow town roads north or northeast to Route 9 or U.S. Route 5. From Route 9, proceed east to Exit 2 (I-91). From U.S. Route 5 proceed north to Exit 1 (I-91). From either route, proceed north on I-91 to Exit 5. Take U.S. Route 5 north to Bellows Falls Union High School (U.S. Route 5 may be used in lieu of I-91 north). **OR** Follow town roads west through Halifax to Route 112 north and continue on the rest of the Vernon route below.
Halifax	Follow town roads north, northeast, or east to Route 9 or U.S. Route 5. From Route 9, proceed east to Exit 2 (I-91). From either route proceed north to I-91 to Exit 5. Take U.S. Route 5 north to Bellows Falls Union High School (U.S. Route 5 may be used in lieu of I-91 north). **OR** Follow town roads west to Route 112 north and continue on the rest of the Vernon route below.
Vernon	Follow Route 142 or U.S. Route 5 north to Exit 1 (I-91). From either route proceed north on I-91 to Exit 5. Take U.S. Route 5 north to Bellows Falls Union High School (U.S. Route 5 may be used in lieu of I-91 north). **OR** The following route provides a wide detour around Vermont Yankee. Follow Route 142 to Route 10, Route 10 south to I-91 south, I-91 south to Exit 26, Route 2 west to Shelburne Falls, Route 112 north to Route 100, Route 100 north to Route 30 at East Jamaica, south on Route 30 to Townsend, north on Route 35 to Cambridgeport, Route 121 to Bellows Falls, south to U.S. Route 5 to Bellows Falls Union High School which will be on your right. ***Note: Traffic should be discouraged from traveling past the nuclear power station***

14. TRAFFIC AND ACCESS CONTROL POINTS

Traffic Control Points (TCPs) will be established to facilitate the flow of traffic in an outbound direction and discourage it in an inbound direction during an evacuation. Access Control Points (ACPs) will be established by using roadblocks, road barriers, or other means to control unauthorized public entry into designated areas. TCPs and ACPs also direct evacuees to the operating reception centers.

Traffic and access control may be required throughout southern Vermont as a result of an incident at Vermont Yankee. State traffic and access control points (within 0-50 miles of the plant) located at the first twelve (12) exits on Interstate 91 and on other numbered highways have been identified by consecutive numbers and are listed in Table 14-1. These points are also shown on the Emergency Control Point map. Copies of the map are available at the State EOC, Staging Area, and the State Police. Additional TCPs/ACPs will be established as conditions warrant. Local TCPs and ACPs, staffed by local response personnel, assist in channeling the evacuation traffic to numbered highways. These points are identified in Table 14-2, Traffic and Access Control Manual, and the local plans.

The Police Services Coordinator at the State EOC will coordinate with the qualified representative of the Agency of Transportation and will ensure that the State Police Liaison has arrived at the Staging Area. The Police Services Coordinator at the State EOC will provide personnel and equipment support to the State Police Liaison at the Staging Area as needed.

Because this is a complex topic that is participated in by a variety of agencies at different levels, a Traffic and Access Control Manual has been developed and published. This manual is reviewed annually and revised as needed.

The Vermont State Police Liaison at the Staging Area, is responsible for assigning State Police to staff the TCPs/ACPs and establishing specific operational criteria for each TCP and ACP when activated. The Vermont State Police Liaison at the Staging Area in conjunction with the Windham County Sheriffs Liaison, and the Staging Area Director will arrange for delivery of equipment, e.g., barricades, cones, etc., to the State TCPs/ACPs when needed. Each of the five EPZ municipalities are responsible for ensuring that equipment is delivered to their TCPs/ACPs and for staffing these points. Local municipalities will request assistance through the Staging Area as needed. Staffing of the state borders will be conducted in conjunction with the Commonwealth of Massachusetts and State of New Hampshire.

TABLE 14-1

State Traffic and Access Control Points

Both the State and local Traffic and Access Control Points should be considered as a flexible list. These are the points that traffic and access control will probably require. However the situation will cause some of these points not to be staffed and for others to be created. It is vitally important for all involved agencies to coordinate with one another if changes are made.

TCP/ACP	Town/State	Highway Location
1	Brattleboro, VT	I-91, Exit 1 southbound
2	Brattleboro, VT	I-91, Exit 2 southbound
3	Brattleboro, VT	I-91, Exit 3 southbound
4	Brattleboro, VT	I-91, Exit 4 southbound
5	Brattleboro, VT	I-91, Exit 5 southbound
6	Rockingham, VT	I-91, Exit 6
7*	Guilford, VT	I-91 Northbound lane at Massachusetts state line
8**	Vernon, VT	VT Route 142 (Fort Bridgman Road) at Massachusetts state line
9	Guilford, VT	US Route 5 at Massachusetts state line
10	Town line between Dummerston and Newfane, VT	VT Route 30 at junction with Depot Rd
11	Putney, VT	US Route 5 at Carol Brown Way
12	Townshend, VT	Junction of Route 30 and Route 35
13	Westminster, VT	US Route 5 at Westminster Road
14	Westminster, VT	US Route 5 at VT Route 123
15	Wilmington, VT	VT Route 9 at junction with VT Route 100 south
16	Wilmington, VT	VT Route 9 west of Wilmington Village

* Established by the Massachusetts State Police.

** Established by the Bernardston, Massachusetts Police Department.

TABLE 14-2

Local Traffic and Access Control Points

Both the State and local Traffic and Access Control Points should be considered as a flexible list. These are the points that traffic and access control will probably require. However the situation will cause some of these points not to be staffed and for others to be created. It is vitally important for all involved agencies to coordinate with one another if changes are made.

Dummerston	TCP/ACP	Highway/Road Location
D1	TCP	Intersection of School House Rd and East West Rd
D2	TCP	Intersection of Middle Rd and East West Rd
D3	TCP	Intersection of VT Rt 30 (Covered Bridge) and East West Rd
D4	TCP	Intersection of US Rt 5 and School House Rd to direct traffic north

Guilford	TCP/ACP	Highway/Road Location
G1	TCP	Intersection of U.S. Rt 5 and TH #1 (Guilford Center Rd) (traffic flow north)
G2	TCP	Intersection of U.S. Rt 5 and Vernon TH #7 (Franklin Rd) (traffic flow north)
G3	TCP	Intersection of U.S. Rt 5 and Vernon TH #1 (Tyler Hill Rd)
G4	TCP	Intersection of TH #1 (Guilford Center Rd) and TH #4 (Weatherhead Hollow Rd) (traffic flow north, east and west)
G5	TCP	Intersection of TH #1 (Guilford Center Rd) and TH #14 (Bonnyvale Rd) (traffic flow north, east, and west)
G6	TCP	Intersection of TH #4 (Weatherhead Hollow Rd) and TH #6 (Sweets Pond Rd) (traffic flow south and west)

Brattleboro	TCP/ACP	Highway/Road Location
B1	TCP/ACP	Intersection of VT Rt 142 (Vernon St), US Rt 5 (Main St, Canal St [Plaza]) and VT Rt 119 (Bridge St) to re-route traffic north
B2	TCP/ACP	Intersection of VT Rt 142 (Vernon St) and Cotton Mill Hill to re-route traffic north. (Directional signage at So Main and top of Cotton Mill Hill)
B3	TCP/ACP	Intersection of Fairground Rd and US Rt 5 (Canal St) to re-route traffic to I-91 north
B4	TCP/ACP	Intersection of Fairview St and US Rt 5 (Canal St) to re-route traffic to I-91 north
B5	TCP/ACP	I-91, Exit 1 and US Rt 5 (Canal St) to re-route traffic north on I-91
B6	TCP/ACP	Intersection of VT Rt 9 (Western Ave) and Orchard St to re-route traffic north or west
B7	TCP/ACP	Intersection of VT Rt 9 (Western Ave) and Bonnyvale Rd to re-route traffic north or west
B8	TCP/ACP	Intersection of VT Rt 9 (Western Ave) and Greenleaf St to re-route traffic north or west
B9	TCP/ACP	Intersection of US Rt 5 (Putney Rd) and VT Rt 30 (Park Place)
B10	TCP/ACP	I-91, Exit 2 on VT Rt 9 (Western Ave) to re-route traffic onto I-91 north
B11	TCP/ACP	Intersections of US Rt 5 (Putney Rd), VT Rt 9, and I-91, Exit 3
B12	TCP/ACP	Loader Standby - Western Avenue
B13	TCP/ACP	Loader Standby - Plaza
B14	TCP/ACP	Loader Standby - Route 5, 9 & I-91, Exit 3 - Roundabout
B15	TCP/ACP	Sign placement - Fairview and Canal Street
B16	TCP/ACP	Sign placement - Western Ave and Orchard Street
B17	TCP/ACP	Sign placement - Western Ave and Bonnyvale Rd.
B18	TCP/ACP	Sign placement - Western Ave and Greenleaf St.
B19	TCP/ACP	Sign placement - Route 5 and Route 30 (Putney Rd and Linden St)
B20	TCP/ACP	Sign placement - Park Place and Linden Street

Brattleboro	TCP/ACP	Highway/Road Location
B21	TCP/ACP	Sign placement - Linden Street and Cedar Street

Halifax	TCP/ACP	Highway/Road Location
H1	ACP	Intersection of Green River Rd and Guilford town line
H2	ACP	Intersection of Jacksonville Stage Rd and Guilford town line

Vernon	TCP/ACP	Highway/Road Location
V1	TCP/ACP	Intersection of VT Rt 142 (Ft Bridgman Rd) and TH #6 (Broad Brook Rd)
V2	TCP/ACP	Intersection of TH #1 (Tyler Hill Rd) and TH #7 (Franklin Rd)
V3	TCP/ACP	Intersection of TH #23 (Depot Rd) and VT Rt 142 (Ft Bridgman Rd)
V4	TCP/ACP	Intersection of Huckle Hill Rd and Pond Rd
V5	TCP/ACP	Intersection of Scott Rd and Pond Rd

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15. RECEPTION CENTERS

The primary Reception Center for Vermont residents is the Bellows Falls Union High School (BFUHS) in Westminster, Vermont, approximately 13 miles outside the plume exposure pathway emergency planning zone. Other Reception Centers available to evacuees are Greenfield Community College, Greenfield, Massachusetts, and Spaulding Gymnasium, Keene State College, Keene, New Hampshire. These facilities are operated by the Commonwealth of Massachusetts and State of New Hampshire, respectively. Centers have been selected based on factors such as location, capacity, and availability of adequate routes for evacuation.

The Bellows Falls Union High School Reception Center is operated under the direction of the Town of Westminster, and staffed primarily by representatives from Town of Westminster, area fire departments, the American Red Cross (ARC), AHS, and Department of Health. The Reception Center serves as the location where evacuees are monitored, decontaminated, registered, reunited with their families, and assigned to a congregate care facility if necessary. Staff and equipment are capable of monitoring 20% of the estimated resident and transient EPZ population within 12 hours. The Bellows Falls Union High School Reception Center is operated in accordance with the Bellows Falls Union High School Reception Center Plan.

The Wilmington High School has been designated as the "Western Reception Center" and implementation of this center is expected soon.

The ARC is responsible for providing congregate care in accordance with standard ARC emergency shelter procedures. The American National Red Cross and FEMA maintain an agreement (Figure 15-1) for the "sheltering and feeding" of evacuees in the event of an emergency at a fixed nuclear facility. Congregate care is further discussed in the Bellows Falls Union High School Reception Center Plan. Additionally the ARC will staff the Administrative Processing and Evacuee Services Branch Director position and will co-ordinate registration, reunification, congregate care and transportation at the Reception Center.

Between The American National Red Cross and
The Federal Emergency Management Agency, Region I.

RAGA 312 VERM

140 04/02/0 15447

DE REGA 0249 0931526
R 0415267 APR 80 FM FEMA REGION I, MAYNARD, MA TO ALL STATES REGION I BT UNCLAS R1-130 FM MCGRAIL RD

ATTN: Director

SUBJ: American Red Cross Involvement in RERP

1. National Headquarters, American Red Cross, and the two New England Divisions have agreed to the following statement for inclusion in the State Nuclear Emergency Plans:

   "The sheltering and feeding of relocatees from a nuclear accident shall be the responsibility of the American National Red Cross. These sheltering and feeding operations shall be carried out in accordance with established standard Red Cross procedures."

2. This statement should eliminate the problems regarding ARC's Responsibilities during times of nuclear accidents.

   BT

   NNN#

FIGURE 15-1

Reception Center Agreement

16. RELOCATION, RE-ENTRY, RETURN AND RECOVERY

The capability of the State of Vermont to make decisions on the relocation, re-entry and return of the general public is essential for the protection of the public from direct long-term exposure to deposited radioactive materials.

A. Relocation

At the beginning of the Post Plume Phase, the release has been terminated and a new set of guidelines is used to determine if relocation is warranted.

Relocation refers to a protective action through which individuals not evacuated during the Plume Phase are asked to vacate a contaminated area to avoid chronic exposure from deposited radioactive material.

(1) Temporary Restricted Zone

The State of Vermont may identify a Temporary Restricted Zone (TRZ). For example, the TRZ boundary might be defined using a combination of the boundary of areas that were evacuated during the Plume Phase, Traffic Control Points (TCP) and/or radiological conditions. The boundary of the TRZ may be updated as data becomes available or as warranted.

Individuals within the Temporary Restricted Zone may be asked to vacate (relocate from) the area until further notice.

An Environmental Sampling Strategy may be developed in support of Relocation activities. For example, appropriate soil sample locations for the Radiological Sampling Team may be identified.

In addition, soil samples from the projected plume boundary may have been collected by the Radiological Plume Tracking Team and submitted for laboratory analysis.

A Restricted Zone may subsequently be determined based on actual soil sample analytical results or other data deemed appropriate for consideration by the Radiological Health Advisor.

(2) Restricted Zone

The Restricted Zone boundary defines an area where it is estimated that an individual=s projected dose may exceed a specified combined projected internal and external dose.

For example, the Radiological Health Advisor may determine that it is appropriate to employ one of the following EPA guidelines in the establishment of the Restricted Zone boundary:

(a) 2 rem TEDE (or 100 rem DE skin beta) in the first year following the incident (also referred to as the EPA first year Relocation PAG),

(b) 0.5 rem TEDE in the second or any subsequent year post incident, or,

(c) 5 rem TEDE over 50 years post incident.

Details of the procedure used to determine the Restricted Zone are provided in Implementing Procedures for the Radiological Health Advisor and the Dose Assessment Team.

The process of determining the actual physical boundaries of the Restricted Zone is a collaborative one. The SEOC Manager and staff will facilitate and coordinate this process. Some of the entities involved and their respective roles are as follows:

(a) As described above, the Department of Health, in cooperation with the Agency of Natural Resources and the Agency of Agriculture, determines where the appropriate guidance value(s) is (are) exceeded.

(b) The Vermont State Police and the affected town(s) (for example, the Windham County Sheriff=s office provides law enforcement services to some towns under existing contract) recommend actual physical boundaries and control points at the edge of or outside the area that exceeds appropriate guidance value(s) that are conducive to control (the actual boundaries are established using easy to distinguish and control land marks).

(c) The Agency of Transportation and the Vermont National Guard assist by providing resources.

(d) The Information Officer ensures that a comprehensive press release is issued before Restricted Zone boundaries are established.

(e) There will be consultation with the States of New Hampshire, Massachusetts, and New York at various levels.

(f) The Governor or designee approves the Restricted Zone boundaries.

(g) Other local, state and federal resources are consulted as needed.

B. Re-Entry

After the Restricted Zone has been established, persons may need to re-enter this area for a variety of reasons, including recovery activities, retrieval of proper, security patrol, operation of vital services, and in some cases, care and feeding of farm and other animals.

Re-entry into the Restricted Zone will be under controlled conditions and in accordance with dose limitations proscribed by the Vermont Department of Health.

Individuals who re-enter the Restricted Zone will be issued appropriate dosimetry and passes by the town or towns located within the zone.

C. Return

Actual measured levels of contamination will be converted into projected doses and compared with the appropriate guidance values identified by the Radiological Health Advisor as described above. This process is detailed in the Implementing Procedures for the Radiological Health Advisor and Dose Assessment Team.

The results of these comparisons will allow the State to determine if,

(1) Some evacuees may be allowed to return and re-occupy their homes and businesses on an unrestricted basis (if monitoring data confirms the location of areas not significantly contaminated by the plume),

(2) Those who were evacuated from areas found to be only slightly contaminated by the plume may be able to return (after careful monitoring and data analyses are performed to determine whether the projected dose will exceed the appropriate guidance value), and

(3) Those who were evacuated from areas found to be contaminated will not be able to return for occupancy until the area is decontaminated (these evacuees are converted to a relocation status).

D. Recovery

Recovery actions may be taken to reduce radiation levels to permit unrestricted, long-term use of property.

Long -term decisions on recovery of areas restricted from occupancy due to contamination will be made by the Health Services Coordinator and Radiological Health Advisor in conjunction with qualified representatives from various state agencies and consultation with Federal Agencies.

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17. RADIOLOGICAL EXPOSURE CONTROL

This section describes the various measures that will be implemented to control and minimize radiological exposures to emergency workers and the general public.

A. Responsibilities

The Health Services Coordinator is responsible for all decisions regarding the radiological health of State and local emergency workers and the general public. The Health Services Coordinator establishes guidelines and procedures to limit exposure, to recommend and authorize the use of KI, and to decontaminate personnel and equipment. The Health Services Coordinator is also responsible for authorizing exposures to emergency workers in excess of specified limits.

B. Personnel Exposure Control

(1) Dosimetry

Emergency workers will be issued a direct-reading dosimeter (DRD) and a dosimeter of legal record (DLR) to measure their whole body exposure to gamma radiation.

Direct-reading dosimeters measure total gamma exposure for each mission and can be read in the field. Each emergency worker will be issued a DRD with a range capable of measuring a radiation exposure of at least 20 Roentgen (R) and a minimum exposure of 0.5R. Radiological Plume Tracking Team members and Radiological Sampling Team members are issued two DRDs. A 0-20R and either a 0-1,000 mR or a 0-2,000 mR DRD.

DLRs can be used to determine the actual radiation dose received by the emergency worker for the duration of the dose accident. These dosimeters provide a permanent, legal record of the dose exposure received by the emergency worker. DLRs cannot be read in the field. Appropriate processing of the DLRs will be performed by the supplier during an emergency.

State emergency workers will be issued an DRD and DLR prior to the start of their emergency mission. Designated state emergency workers have been issued DLRs for their normal working assignment. In the event of a VYNPS incident they will be provided separate dosimetry to account for dose associated specifically with the VYNPS radiological emergency. Emergency workers are required to use their dosimetry at all times. The emergency workers will be instructed to read their DRDs on a periodic basis, e.g., every 15-30 minutes depending on radiological conditions, and report readings initially at 1R and at 1R increments thereafter. A dose limit of 5 rem Total

Effective Dose Equivalent has been established and cannot be exceeded without authorization of the Health Services Coordinator.
Adequate supplies of dosimetry (DRDs and DLRs) and instructions have been pre-placed with appropriate organizations within the 10-mile emergency planning zone. The local plans specify the quantities, storage, instructions for use, means of distribution and collection, and maintenance and calibration requirements. A complete distribution list of all radiation dosimetry and instruments is maintained at the State EOC.

(2) Record-keeping

A log of the dosimetry issued will be maintained by the issuing organization. Upon return from a mission, the exposure received by the emergency worker will be entered into the log. After the emergency has been terminated, the records will be forwarded to the Department of Health for permanent record maintenance.

Before leaving on a mission, each emergency worker will be provided instructions on dosimetry use, including when to report exposure levels, and the allowed exposure limits. Each emergency worker will also receive an individual "Radiation Exposure Record" card. After receiving an DRD, the emergency worker will record the initial readings on the exposure record card. The exposure received from each mission will be entered and the cumulative exposure maintained.

(3) Exposure Limits

The Environmental Protection Agency (EPA) provides guidance for controlling doses to workers under emergency conditions. The EPA dose limits for emergency workers are different than the Protective Action Guides (PAGs) recommended for the general public. Table 17-1 provides a summary of the dose limits for controlling doses to workers performing emergency services. These limits allow for administrative flexibility to authorize emergency workers to increase their exposure over the duration of the emergency as appropriate for protecting the health and safety of the general public.

(4) Mission Exposure Limits

Personnel in general, and Radiological Plume Tracking and Radiological Sampling teams in particular, may be assigned mission turn-back limits to limit exposure. The tracking and sampling teams have a mission turn-back limit of 1.5R unless otherwise specified by the Radiological Health Advisor. Other Emergency Workers may be assigned a mission turn-back limit as needed.

(5) Potassium Iodide

The uptake of radioiodine by the thyroid gland can be reduced by the ingestion of stable iodine. The oral administration of potassium iodide (KI) will result in the accumulation of stable iodine in the thyroid to prevent significant uptake of radioiodine. KI is only effective for exposure to radioiodine and only if it is taken prior to, or shortly (up to four hours) after, the uptake of radioiodine.

The administration of KI to the general public who have received pre-event distributions of KI will be considered as a protective action if the presence of radioactive iodine is likely in a plume that either has occurred or is likely to occur. Evacuation of the general public should be directed before the projected dose limit is reached. KI may be administered to three groups: emergency workers, institutionalized individuals for whom immediate evacuation may not be feasible, very difficult, or delayed, and members of the public in the EPZ who have received pre-event distributions of KI . Radiological Plume Tracking Teams and Radiological Sampling Teams may be directed to take potassium iodide prior to starting missions as appropriate.

The Health Services Coordinator will continuously assess the need to authorize the use of KI. Decisions may be based on the EPA protective action guides (PAGs) or a more conservative approach may be taken if a release is imminent and it is likely to contain radioactive iodine. The decision to administer KI to one or more groups is made only by the Vermont Department of Health, Health Services Coordinator or designee.

A one day dose of KI will be distributed to each emergency worker at the time dosimetry is issued. Should the decision to authorize KI be made for some or all emergency workers, they will be issued the remaining 9-day supply when they complete their duties that shift.

C. Personnel Monitoring

Emergency workers, equipment, vehicles, and supplies used in emergency response, and evacuees and their possessions and vehicles may become contaminated if there has been a release of radioactive material. Monitoring will be performed to determine the presence of contamination and the need for subsequent actions such as decontamination. Monitoring is performed in accordance with established procedures.

(1) Instrumentation

Various monitoring instruments have been distributed to the local EPZ communities, the Staging Area, and the Bellows Falls Union High School Reception Center.

This instrumentation includes Geiger-Mueller survey meters or equivalent instruments. . A complete list of radiological instruments used by field teams is contained in current Radiological Plume Tracking Team and Radiological Sampling Team procedures.

Portal monitors are also used at the Bellows Falls Union High School Reception Center (BFUHS), or other locations as appropriate, for screening evacuees.

(2) Monitoring Locations

State and local emergency workers and vehicles will be monitored at the Staging Area or other locations as needed. The field monitoring teams have the capability to monitor themselves. The general public will be monitored at the BFUHS Reception Center as outlined in the BFUHS Reception Center Plan. An emergency worker Radiological Monitoring and Decontamination (RM&D) Unit will set up a station to monitor and decontaminate emergency workers.

D. Decontamination

As a default value, if radiological monitoring indicates a level of contamination of 1000 cpm, or greater, above local background, decontamination measures are required. Other contamination levels may be chosen for this discrimination should the Radiological Health Officer deem it advisable. State and local emergency workers, vehicles, and equipment are decontaminated at or near the Staging Area or at the Reception Center, or other locations as appropriate. The general public will be decontaminated at the BFUHS Reception Center, or other locations as appropriate. Individuals who are contaminated and injured will be referred to a designated hospital (refer to Section 19) for treatment. The disposal of contaminated waste will be coordinated by the Department of Health. The Reception Center will be considered the alternate emergency worker RM&D station in the event that there is a problem at the Staging Area RM&D station.

E. Maintenance of Monitoring Equipment and Supplies

Direct-reading dosimeters will be tested initially for accuracy. DRDs that read in Roentgens will be inspected for electrical leakage annually and recharged or replaced if necessary. Survey instruments will be calibrated annually. Dosimetry and meters will be operationally checked quarterly. DLRs will be collected for readout and replaced annually by Vermont Emergency Management. Available KI supplies will be within the expiration date indicated on the KI packages. As an alternative, a letter from the Vermont Department of Health and the Food and Drug Administration will be available that documents any formal extension of the KI expiration date. Any deficiencies will be reported promptly to Vermont Emergency Management for appropriate corrective action. Vermont Emergency

Management or the Vermont Department of Health, as appropriate, is responsible for the maintenance and calibration of equipment.

TABLE 17-1

Recommended Guidance on Dose Limits For Emergency Team Workers

Dose Limit[1]	Work Activity	Comments
5 Rem Total Effective Dose Equivalent (TEDE)	All	Maintain ALARA[2] and control exposure of emergency team members to extent practicable to these levels. (Appropriate controls for emergency workers will include time limitations, respirators and stable iodine.)
10 Rem TEDE	Protecting Valuable/ Essential Property	Lower dose not practicable. (Appropriate controls for emergency workers will include time limitations, respirators, and stable iodine.) Knowledgeable volunteers will be used whenever possible.
25 Rem TEDE	Lifesaving or Protection of Large Population	Control exposure of emergency team members performing lifesaving missions to this level. (Control of time of exposure will be most effective.) Knowledgeable volunteers will be used whenever possible.
>25 Rem TEDE	Lifesaving or Protection of Large Population	Only on a voluntary basis to persons fully aware of the risks involved. This includes the numerical levels of dose at which acute effects of radiation will be incurred and numerical estimates of the risk of delayed effects.

Source: EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, Revised 1992, Section 2.5, Page 2-9

[1] Emergency dose limits for the lens of the eye and for any organ (including skin and extremities) are three and ten times the listed values, respectively.

[2] **A**s **L**ow **A**s **R**easonable **A**chievable. The radiation protection philosophy of minimizing radiation exposure to the lowest practical level.

18. PUBLIC INFORMATION

The preparation and dissemination of accurate and timely information and instructions to the public is critical during an emergency. This section describes the various means of keeping the public informed during an emergency, as well as the various informational materials distributed to the public on a periodic basis.

A. Public Information and Instructions During an Emergency

(1) Emergency Alert System (EAS) Messaging

As discussed in Section 7, the weather alert radios and sirens will be activated to alert the public to tune to their EAS station for information and instructions. Activation of the Public Notification System requires the coordination of the three states of Vermont, Massachusetts, and New Hampshire due to the overlap of the radio stations and weather alert radios across state lines.

The Information Officer is responsible for issuing the request for EAS activation and message broadcast. This is done after the decision to implement protective actions is authorized by the Governor, or designee, including the declaration of a State of Emergency, and activation of all components of the Public Notification System is coordinated with the Commonwealth of Massachusetts and State of New Hampshire. Local requests for activation of the EAS must be approved and processed through the State EOC.

In the event of a fast breaking General Emergency, when initial notification to the State Warning Point (SWP) includes a recommendation for public protective actions, the dispatcher will contact the Director of Emergency Management, or designees, for instructions. If these individuals are not available, the Dispatcher will request the NWS to activate the NOAA weather alert radios. The SWP will also request activation of the EPZ town sirens (Brattleboro and Vernon) and the EAS in the Windham County Operational Area. These actions will be performed in accordance with the Notification Manual.

EAS messages will contain clear, understandable, and accurate information and instructions. Information in the EAS messages will include, but is not limited to: a description of the current emergency classification level and plant conditions; sheltering instructions; location of reception centers; reference to previously distributed informational material and instructions for transients, special population and transportation dependent individuals, and parents of school children. Pre-scripted EAS messages have been

developed and are maintained by VEM (see Attachment __ for sample news releases.

The EAS System consists of designated Common Program Control Stations (CPCS). These are utilized in order to provide an effective and reliable means to issue emergency instructions to the public. A list of CPCS in the State of Vermont is included as Table 18-1.

TABLE 18-1

Vermont State Emergency Alert System (EAS) Common Program Control Stations

City of License	Call Sign	Frequency	Telephone	Fax
Vermont Emergency Management, Waterbury			244-8721	241-5556
National Weather Service, Burlington			862-9883	660-0705
Brattleboro	WTSA-AM WTSA- FM	1450 96.7	254-4577	257-4644
Colchester	WVMT-AM	620	655-1320	655-6593
Newport	WIKE-AM	1490	766-4485	766-8067
Rutland	WZRT-FM	97.1	755-5597	775-6637
St. Johnsbury	WSTJ-AM	1340	748-2361	748-2361
Waterbury	WDEV-AM	550	244-7361	244-5266

Coordinate with National Weather Service, Albany, NY, for activation of NOAA weather alert radios in EPZ

Warning Coordinator 518-435-9568; Menu 518-435-9571; (F) 518-435-9587
Forecasters (unlisted) 518-435-9574

Primary stations are stations that broadcast or re-broadcasts a common emergency program for direct public reception, as well as inter-station programming for the duration of the EAS activation.

Source: "State of Vermont EAS Operational Plan" - Draft 12/98

(2) News Releases and Media Briefings

Briefings of the news media will be conducted jointly by utility, state, and federal representatives at the News Media Center/Joint Information Center (JIC) located at the Energy Vermont Yankee Corporate Offices in Brattleboro.

The State of Vermont spokesperson at the JIC is a designated member of the Vermont JIC Team. The Vermont representative at the News Media Center/Joint Information Center will coordinate with the Media Information Officer at the State EOC regarding the release of information.

Briefings will be held on a timely basis and as pertinent information becomes available. Information will be shared and coordinated among the designated spokespersons from the various organizations and states prior to release.

News releases will be generated at the State EOC. Copies will be provided to the State of Vermont JIC Team at the News Media Center/Joint Information Center for release and distribution. Copies of the EAS messages will also be provided to the News Media Center/Joint Information Center.

(3) Public Inquiry Hotline

A toll-free public inquiry telephone number (currently 800-736-5530) will be made public in order to respond to public concerns and provide information and emergency instructions.

State Public Inquiry (rumor control) operations will be conducted at the United Way "211" center in South Burlington, Vt., or the State EOC. The state-wide toll free Public Inquiry number will be provided in news releases issued during the emergency. This number is also published in the emergency public information distributed annually to residents in the plume exposure EPZ.

The utility also operates a public information program from the News Media Center. The state will coordinate Public Inquiry operations with the utility and the Commonwealth of Massachusetts and State of New Hampshire.

B. Annual Public Information Program

Vermont Emergency Management, in conjunction with the utility, is responsible for the development of public information for the permanent and transient population within the plume exposure pathway emergency planning zone. This information is prepared annually and includes calendars, posters, and brochures. Information contained in these materials includes:

(1) An explanation of how the public will be notified of a radiological emergency.

(2) Instructions to be followed if the Public Notification System is activated.

(3) A description of the EAS and listings of local EAS stations.

(4) Information for special needs and transportation dependent individuals.

(5) Protective actions including sheltering and evacuation.

(6) Evacuation route maps and locations of reception centers.

(7) Telephone numbers for obtaining additional information.

(8) Educational information on radiation.

(9) Potassium iodide distribution.

Calendars are distributed annually to households and businesses within the plume exposure pathway emergency planning zone. The public information calendar contains information and mail-in special needs population reply cards that persons in the EPZ may use so that special notification, transportation, or other assistance may be arranged in advance.

Large weatherized posters have been distributed to locations (e.g., parks, recreation areas), frequented by tourists and transients. The brochures contain emergency public information for transients and are also distributed annually to hotels, motels, and other areas visited by tourists.

The public information materials are reviewed and updated annually by the utility and the State.

C. Annual Media Training

Representatives from the print and electronic media receive annual training/orientation sponsored by the utility. The purpose of the training is to familiarize the media with emergency plans, basic concepts of radiation, News Media Center/Joint Information Center operations, and emergency points of contact for release of information during an emergency. The utility Public Affairs Office conducts this training. Because of the frequent turn over of local media persons, this training is provided to individuals or small groups as needed throughout the year. Documentation of this training is provided annually in the Annual Letter of Certification.

D. Emergency Planning Information (EPI) Website

All of the information from the calendar and electronic request forms are included on the program website. The pseudonym "VtNuclearSafety.com" is used to facilitate easy access. Additional features such as a "Frequently Asked Questions (FAQ)" sections will be added as needed.

E. Farmer Information Brochure

The ARadiological Emergency Information for Vermont's Farmers, Food Processor and Distributors@ brochure is regularly distributed to farmers, food processors, and distributors within 10 miles of the Vermont Yankee Nuclear Power Station.

During an emergency, County Agents working in conjunction with the University of Vermont Extension Service will disseminate information to farmers within 50 miles of the Vermont Yankee Nuclear Power Station (the Ingestion Pathway Zone). This brochure contains the following information:

(1) Educational information on the impact of radioactive contamination on the ingestion pathway zone;

(2) Information on protective measures related to the ingestion pathway, such as interdiction or condemnation of foods, feeds, or other contaminated products; and

(3) Information or instructions for implementing precautionary and protective actions.

(4) Contact points for additional information.

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19. RADIOLOGICAL RESOURCES

A. Nuclear/Radiological Incident Annex to the National Response Plan

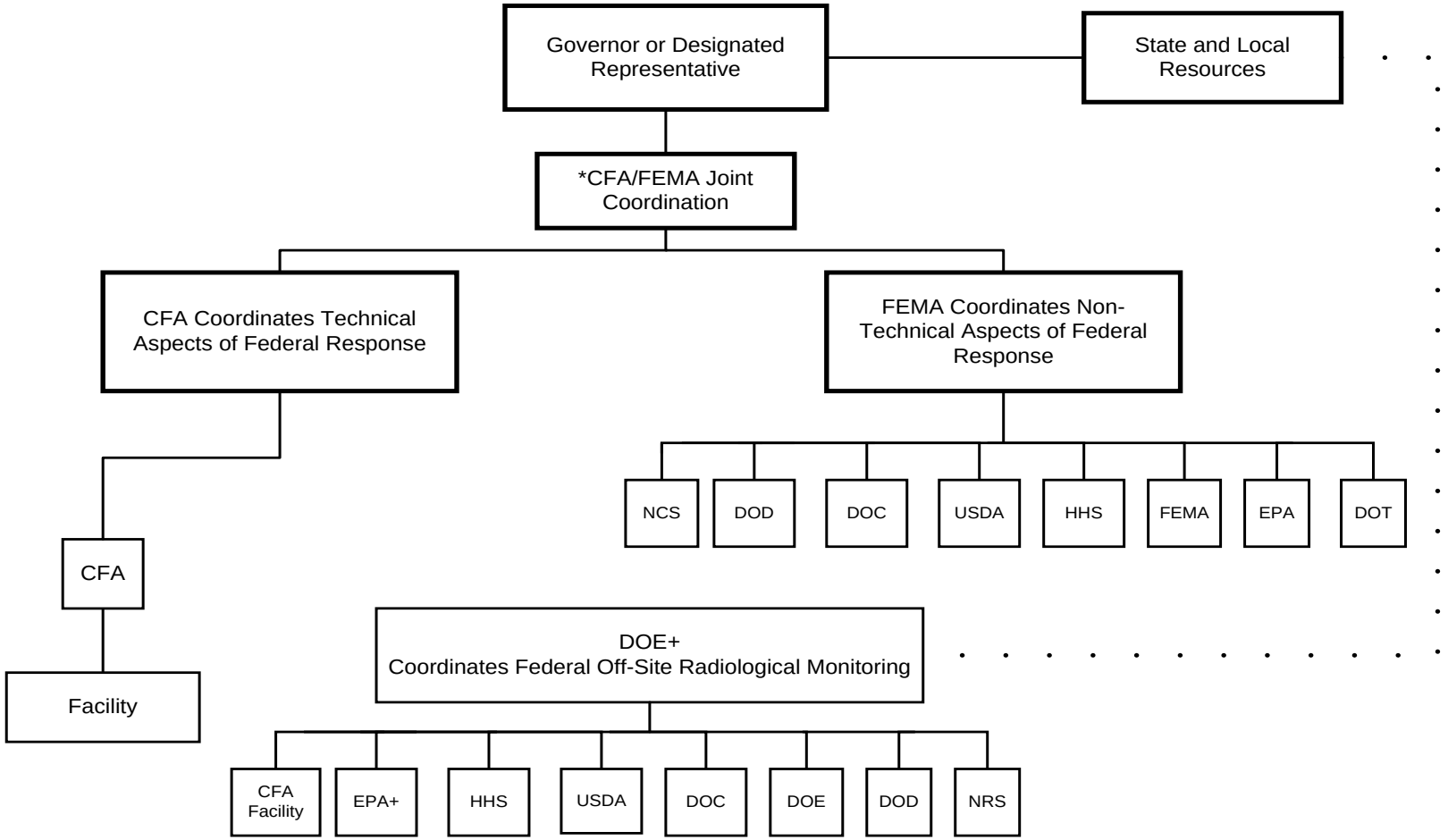
Both technical and non-technical assistance is available from the federal government at the request of the state. The assistance available is outlined in the Nuclear/Radiological Incident Annex to the NRP and the Federal Radiological Monitoring and Assessment Plan (FRMAP). Federal non-technical assistance includes interagency coordination, communications, and logistics. Technical assistance includes radiological monitoring, accident assessment, protective action decision making, and radiological exposure control.

The EOC Manager at the State EOC or designee will determine the needed federal non-technical assistance and recommend to the Governor that support be requested. The assistance will be requested by the EOC Manager through FEMA, Region I in Boston. The Health Services Coordinator or designee can request federal technical assistance directly from the Department of Energy's (DOE) Brookhaven National Laboratory in New York. The EOC Manager will request a Federal Radiological Monitoring and Assessment Center (FRMAC). All requested federal assistance will be coordinated through the EOC Manager.

Upon activation of the Nuclear/Radiological Incident Annex to the NRP, a federal operations center will be established to serve as the focal point for federal response team interactions with the State. The DOE will establish the Federal Radiological Monitoring and Assessment Center (FRMAC). From the FRMAC, DOE coordinates the monitoring and assessment efforts of all federal agencies. The FRMAC is usually established near the site of the accident. The size and complexity of the FRMAC will depend on the incident. The FRMAC can provide the most extensive monitoring and assessment capabilities available in the U.S. It will require from 24 to 72 hours for a fully operational FRMAC to be established. DOE has delegated the responsibility for establishing the FRMAC to the DOE Nevada Operations Office. EPA assumes long-term environmental leadership of the FRMAC including planning for the long-term environmental monitoring program. EPA provides monitoring, laboratories, and support for the FRMAC.

The State will support the federal response as resources allow. There is space available for NRC and FEMA representatives at the State EOC. Air travel and freight shipments will be directed to major airports in the State. Airports in the vicinity of Vermont Yankee Nuclear Power Station which may be utilized by federal agencies are listed in Table 19-1. Expected times of arrival will be dependent on several factors, including locations of federal personnel and materials. It is anticipated that the time of the initial arrivals will range from 6-24 hours.

The following sections identify the essential federal agencies that will provide support (see Figure 19-1), and a description of their primary responsibilities.



* CFA – Cognizant Federal Agency
\+ During intermediate and long term phases, these roles will be reversed

FIGURE 19-1
Federal Response Management for a Radiological Emergency

(1) Department of Commerce (DOC) - National Oceanic and Atmospheric Administration (NOAA)

(a) Provides current and forecast meteorological information about wind direction and speed, low level stability, precipitation, and any other meteorological and hydrological factors affecting the transport or dispersion of radioactive materials.

(b) Prepares and disseminates forecasts and warnings for severe weather such as hurricanes, tornadoes, severe thunderstorms, floods, and extreme winter weather to local officials and the general public.

(c) Broadcasts watches and warnings of natural disasters (prepared by NOAA) and radiological emergency warnings approved by the States, over NOAA Weather Radio.

(2) Department of Defense (DOD)

(a) Provides military assistance, in the form of manpower, technical support, and logistical support, including airlift services and telecommunications support, as requested by FEMA.

(3) Department of Energy (DOE)

(a) Coordinates the off-site radiological monitoring assessment, evaluation, and reporting activities of all federal agencies during the initial phases of an accident, and maintains a technical liaison with state and local agencies with similar responsibilities.

(b) Ensures the orderly transfer of responsibility for coordinating the intermediate and long-term radiological monitoring function to the Environmental Protection Agency (EPA) after the initial phases of the emergency.

(c) Provides the personnel and equipment required to coordinate and perform off-site radiological monitoring and evaluation activities.

(d) Assists the appropriate agencies in assessing the accident potential and in developing technical recommendations on protective measures.

(e) Maintains a common set of all off-site radiological monitoring data and provides these data and interpretation to the NRC and to appropriate state and local agencies requiring direct knowledge of radiological conditions.

(f) Provides consultation and support services to all other entities (e.g., private contractors) having radiological monitoring functions and capabilities.

(g) Assists Health and Human Services (HHS) and other federal, state, and local agencies by providing technical and medical advice on the methods of handling radiological contamination.

(h) Provides telecommunications support to federal agencies assisting in off-site radiological monitoring.

(i) Requests supplemental radiological monitoring assistance from other Federal agencies when needed.

(j) Requests meteorological, hydrological, and geographical data needed for monitoring and assessment efforts.

(k) Maintains the Aerial Measuring System (AMS) and the National Atmospheric Release Advisory Capability (NARAC) to assist states in identifying the boundaries of a contaminated area.

(4) Department of Health and Human Services (HHS)

(a) Provides assistance to state and local government officials on the use of radio-protective substances.

(b) Provides advice and guidance to state and local officials in assessing the impact of the effects of radiological incidents on the health of persons in the affected areas.

(c) Provides guidance to State and local health officials with jurisdiction when requested on disease control measures and epidemiological surveillance of exposed populations.

(d) Assists, in coordination with the U.S. Department of Agriculture, in developing technical recommendations for state and local officials regarding protective measures related to food and animal feed.

(e) Provides resources, in coordination with the U.S. Department of Agriculture, to ensure that food and animal feeds are safe for consumption.

(5) Department of Housing and Urban Development (HUD)

(a) Reviews and reports on available housing for disaster victims and displaced persons.

(b) Assists in planning for and placing homeless victims in available housing.

(c) Provides emergency housing support staff within available resources.

(d) Provides technical housing assistance and advisory personnel to State and local authorities with jurisdiction.

(6) Department of the Interior (DOI)

(a) Provides advice and assistance in assessing and minimizing off-site consequences on natural resources including fish and wildlife.

(7) Department of Transportation (DOT)

(a) Provides civil transportation assistance and support.

(b) Coordinates the federal civil transportation response in support of emergency transportation plans and actions of state and local governments.

(c) Provides, through Regional Emergency Transportation Coordinators, representation and assistance to state and local transportation authorities.

(8) Environmental Protection Agency (EPA)

(a) Provides resources including personnel, equipment, and laboratory support to assist DOE in monitoring radioactivity levels in the environment.

(b) Assists the NRC in developing technical recommendations regarding measures to protect the public health and safety.

(c) Assumes responsibility from DOE for coordinating the federal intermediate and long-term radiological monitoring function after the initial phases of the emergency at a mutually agreeable time.

(d) Provides guidance to federal agencies and state and local governments with jurisdiction on acceptable emergency levels of radioactivity and radiation in the environment.

(e) Assesses the nature and extent of the environmental radiation hazard.

(9) Homeland Security Department

Created by the Department of Homeland Security Act of 2002, the Department combines the major federal agencies that contribute to the internal security of the United States. The Federal Emergency Management Agency (FEMA) is one of the many component agencies. Three (3) recent developments are the National Response Plan, the National Incident Management system and the National Response Center. The Department is standardizing and coordinating a more collaborative incident management approach.

(10) Federal Emergency Management Agency (FEMA)

(a) Serves as the primary point of contact and coordination for requests for various federal assistance, except those pertaining to the FRMAP, from state officials.

(b) Provides a lead official to coordinate and ensure the provision of appropriate non-technical assistance requested by federal and state agencies.

(c) Serves as the primary point of contact and coordination between the NRC and other federal agencies for non-technical response activities.

(d) Coordinates the dissemination of all public information concerning federal non-technical emergency response activities, and ensures that public information releases are coordinated with state authorities and the NRC. Establishes an interagency public affairs group.

(e) Reviews and integrates all federal agency implementation plans to ensure that all required actions and interfaces are adequately addressed.

(11) National Communications System (NCS)

(a) Provides and coordinates, in response to a FEMA request, the necessary communications for the federal government response in accordance with the National Plan for Communications Support in Emergencies and Major Disasters. This support may be provided prior to a formal declaration of an emergency or major disaster.

(b) Provides technical representation to appropriate state agencies to assist in meeting their communications requirements.

(12) Nuclear Regulatory Commission (NRC)

(a) Assesses the nature and extent of the radiological emergency and the potential off-site consequences on the health and safety of the public.

(b) Coordinates the technical response activities between the licensee, DOE and other federal agencies.

(c) Provides technical advice to licensee and state agencies.

(d) Assesses recommended protective actions and develops, for state and local agencies if necessary, a federal technical recommendation on protective measures which reflects the views of other federal agencies.

(e) Coordinates the release of public information concerning the federal technical response, including the status of the reactor, radiological monitoring activities, and other federal technical support and ensures that such releases are coordinated with the state(s), FEMA, and the licensee.

(13) United States Department of Agriculture (USDA)

(a) Assists the NRC, in coordination with HHS, in developing technical recommendations for state and local officials regarding protective measures related to food and animal feed.

(b) Assists state and local officials, in coordination with HHS and EPA, in the implementation of protective measures to minimize contamination through food ingestion.

(c) Estimates and provides advice to state and local officials on minimizing losses to agriculture resources from radiation effects.

(d) Monitors emergency production, processing, and distribution of food resources during a radiological accident.

(e) Assists in the provision of animal feed to replace contaminated feed and pasture.

(f) Provides advice to state and local officials regarding the disposition of food animals contaminated by radiation.

(g) Provides emergency food coupon assistance in officially designated disaster areas whenever a predetermined threshold of need is reached and the commercial system is sufficiently viable to accommodate the use of food coupons.

(h) Provides information and assistance to farmers, food processors, and distributors to aid them in returning to normal after a radiological emergency.

(i) Assists in reallocation of USDA donated food supplies from Commodity Credit Corporation stocks stored in ware houses, local schools, and other outlets to emergency care centers.

(j) Provides a liaison to state agricultural agencies to keep state and local officials informed of federal efforts.

B. The New England Compact on Radiological Health Protection

The New England Compact on Radiological Health Protection (The Compact) was adopted by the six New England states by legislative action, and provides the means for obtaining assistance from other states.

The New England Interstate Radiation Assistance Plan outlines the manner in which interstate mutual aid and assistance will be provided. It includes specific information on channels of communication among states, availability of equipment, laboratory capabilities, procedures for requesting assistance, and notification of party states of a radiological incident. It also provides clarification for the loan of personnel and equipment, and for coverage of financial obligations resulting from the provision of assistance. The services of the Winchester (Massachusetts) Engineering and Analytical Center are also available through the Compact.

Authority to seek assistance by means of The Compact has been delegated to the Health Services Coordinator or designee. Coordination of needed resources will be performed at the State EOC.

C. Emergency Management Assistance Compact (EMAC)

In the 2001 Session, the Vermont Legislature passed Act 138 which revised Title 20 and adopted the Emergency Management Assistance Compact. A majority of the States and territories of the United States have also adopted EMAC. Vermont Emergency Management will request resources to include personnel as needed through EMAC. Vermont Emergency Management will be pro-active in identifying likely sources of certain critical resources and develop prior understandings with other states. One means of being pro-active is to utilize EMAC during drills and exercises.

D. Special Memoranda Of Understanding (MOU)

Vermont may negotiate Memoranda of Understanding (MOU) with nearby states or other organizations with staff with technical skills and training to provide assistance during emergencies. This may include personnel coming to Vermont and/or providing data or analysis and sending the information to Vermont in a timely and accurate fashion.

TABLE 19-1

Airports in the Vicinity of Vermont Yankee's Ingestion Pathway Zone
For additional airport data, go to "www.vermontairports.com"

NORTHERN VERMONT

Burlington International Airport (BTV), South Burlington, John J. Hamilton, Director of Aviation, 863-2874. Innotech, 653-2200. Valley Air Services, 863-3626. AV gas and jet fuel.

Caledonia County State Airport (6B8), 2107 Pudding Hill Road, Lyndonville. Tom Winans, Manager, 626-3353 / 626-3604(H) / 626-3581(F). 100LL fuel.

Franklin County State Airport (ISO), Swanton, George Coy, Manager, 868-2822 / 868-5633 / 868-2698(H) / 868-4465(F). Border Air, 868-2822. 100LL fuel.

John H. Boylan State Airport (5B1), Island Pond. Unattended. Turf. Winters - not plowed. No fuel.
Morrisville-Stowe State Airport (MVL), Morrisville. Dave Whitcomb, Manager, 888-7845 / 888-7085(H) / 888-3021(F). Stowe Soaring, 888-7845. Soaring Center. 100LL and jet fuel.

Newport State Airport (EFK), Newport. Daniel Gavin, Manager, 334-5001. Newport Air Services, 334-5001. 100LL fuel.

Shelburne Airport, Mt. Philo Road, Shelburne, Ray Magee, 985-2100.

CENTRAL VERMONT

Basin Harbor Airfield (BO6), Vergennes. Robert Beach, Jr., Manager, 475-2311 / 475-6545(F). Unattended. Turf. No fuel. Resort.

Edward F. Knapp State Airport (MPV), 1979 Airport Road, Berlin. John Roberti, Manager, 223-2221 / 476-5138 / 223-3692(F). Vermont Flying Service, 223-2221. 100LL and jet fuel.

Fair Haven Municipal Airfield (1B3), Fair Haven. Tom Perry, Airport Committee Chair, 265-3113(H). Unattended. Turf. No fuel.

Middlebury State Airport (6B0), Middlebury. Mike Vincent, Manager, 388-0733 / 518-597-9241(H) / 388-2791(F), Joe Quesnel 518-546-9612(H). Middlebury Flight School, 338-0733. 100LL fuel.

Post Mills Airport (2B9), Post Mills. Brian Boland, Manager, 333-9254. Turf. Soaring Center and Balloon Rides. No fuel.

Rutland State Airport (RUT), Rutland. Tom Trudeau, Manager, 786-8881 / 786-2579 / 273-5660(F). Alpine Aviation, 773-3348. 100LL and jet fuel.

Warren-Sugarbush Airport (0B7), Warren, Rick Hanson, Airport Manager, 476-2290(W) / 496-4478(H). Paved. Closed December to April.

SOUTHERN VERMONT

William H. Morse State Airport (DDH), Bennington. Craig Bottesi, Manager, 753-5200x212(W) / 823-5154(H) / 442-3582(F). Business Air, 447-2111. 100LL and jet fuel.

Hartness State Airport (VSF), 15 Airport Road, Springfield. Craig Chamberlain, Manager, 886-8594 / 886-3017(H) / 886-2556(F). Springfield Aviation, 886-8594. Soaring Center. 100LL and jet fuel.

Mount Snow Airport, 69 Airport Road, West Dover. Robert North, Manager, 464-2196. Unattended. 100LL fuel.

North Windham Airfield (3N3), (Robins Nest), Londonderry. Robin Johnson, Manager, 802-875-2821 /908-528-7698 / (F) /908-449-6911. Unattended. Turf. Golf Course Adjacent. No fuel.

20. EMERGENCY MEDICAL SUPPORT

A. Emergency Medical Services

Emergency Medical Services (EMS) are provided by ambulance and first responder services operated by local government and private organizations. During an emergency at Vermont Yankee, the Medical Services Coordinator at the Health Operations Center (HOC) will coordinate with local EMS agencies to ensure that adequate ambulance and hospital resources are available. The Medical Services Coordinator will also coordinate with special facilities in the EPZ regarding transportation, medical needs, and receiving facilities. The Medical Services Coordinator will utilize a statewide resource pool to augment the local EMS capability as necessary.

B. Medical Facilities

The Joint Commission on Accreditation of Hospitals (JCAH) requires that emergency patient care be guided by written policies and procedures. Among the required written procedures is one concerning the emergency management of individuals who are contaminated and injured or overexposed to radiation. Care of these individuals may involve radiological monitoring or measurement, special preparation of space for patient evaluation, decontamination of the patient through appropriate cleansing, and containment, labeling, and disposal of contaminated material.

A list of all licensed hospitals is maintained by the state EMS Division. The primary hospital for the treatment of contaminated, injured individuals in Vermont is Brattleboro Memorial Hospital. The hospital has the necessary trained personnel and procedures, equipment, and supplies to treat contaminated, injured individuals. Franklin Medical Center in Greenfield, Massachusetts, and Cheshire Medical Center in Keene, New Hampshire, are backup facilities. Transportation of contaminated, injured individuals will be provided by ambulance and first responder services serving the area. For the Vermont Yankee EPZ, Rescue, Inc. is the primary ambulance provider.

Both the primary and backup hospitals and ambulance services are provided annual training. Medical drills involving the hospitals and ambulance services are held annually in conjunction with Vermont Yankee Nuclear Power Station. These drills are evaluated by FEMA every two years.

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21. EMERGENCY RESPONSE TRAINING, DRILLS AND EXERCISES

A. Training

(1) Introduction:

(a) Radiological emergency response training is provided to state and local response personnel. The purpose of training is to ensure personnel are knowledgeable of their assigned roles and responsibilities in the event of an emergency at Vermont Yankee. Specialized training that increases public knowledge is also available to communities and schools in the Emergency Planning Zone surrounding Vermont Yankee. Training accomplished through a comprehensive core curriculum utilizing Power Point, media and print format, small group exercises, table top exercises, and individual skills demonstrations

(b) Training of State and local emergency response organizations and the public is coordinated by the Vermont Emergency Management Radiological Emergency Response Plan (RERP) program.

i. The RERP EPZ Training Program is staffed by a Training Coordinator who is responsible for RERP curriculum design and training program coordination and scheduling. The Training Coordinator is the primary training officer for the EPZ and for some organizations responding into the EPZ as well as the Reception Center staff. The Training Coordinator trains, assigns and supervises a staff of adjunct instructors.

ii. Training for personnel or organizations responding to or controlled by the State EOC will be developed and conducted by Section and Unit Leaders.

iii. Training is also conducted by agencies and organizations having specific response mandates. These organizations shall establish their own annual training and retraining programs to qualify personnel in specialized response capabilities. Orientation training and periodic retraining programs shall be provided for the following groups:

a. Directors and coordinators of response organizations

b. Accident assessment personnel

c. Radiological monitoring teams (plume and ingestion pathways)

d. State EOC staff

e. Communications personnel

f. Law enforcement and fire fighting personnel

g. First aid and rescue personnel, including mutual aid organizations

h. Local community response personnel

i. Medical support and emergency information/media personnel.

The key personnel receive training through the utility and FEMA sponsored courses/training programs.

(2) EPZ Core Training

The comprehensive training program is designed for both new and experienced state and local response personnel, municipal officials, and local emergency operations center (EOC) staff. Training is delivered in modules appropriate for the target group. The modules available are as follows;

(a) *Introduction to Radiological Response* – A basic introductory course containing information on what a radiological emergency is, what roles emergency workers fill, ionizing radiation, dosimetry, and exposure control. This is the introductory course for all emergency workers.

(b) *Radiological Response Operations* - Instruction and hands-on demonstration of hand-held radiological survey meters used in emergency response within the EPZ as well as proper practices for decontamination of radiological materials.

(c) *Radiation Refresher* - Review of basic information on radiation, its biological effects, measurement, safety, survey meters and the RERP program.

(d) *Dosimetry & Exposure Control* - Instruction and hands-on demonstration on the use of various dosimeters appropriate for use in emergency response within the EPZ to a radiological incident.

(e) *Radiological Officer* – This course is offered annually to all radiological officers in the EPZ and reception centers. It reviews radiation, dosimetry, and the responsibilities of the radiological officer both on a quarterly bases and during actual or simulated emergencies.

(f) *Transit Provider* - Training for all transit providers that may respond in the event of an incident at VY. The course covers basic radiation, dosimetry, staging, and roles.

(g) *Reception Center* – Overview of the Reception Centers in Vermont, the purpose, staffing of a reception center, and implementing procedures.

(h) *RERP Overview* – Course outlining the State of Vermont's Radiological Emergency Response Program (RERP), its responsibilities, history, Emergency Action Levels (EALs), the Emergency Planning Zone (EPZ) and what happens in a radiological emergency.

(i) *Radios and Communications* - This course standardizes radio use in radiological emergencies in the EPZ. It covers a range of topics from radio terminology and etiquette, to VEM Forms used in an emergency.

(j) *Table Tops, Drills, and Exercises* - Hands-on practical exercises for emergency responders and EOC staff. Each scenario is custom tailored for the town/agency.

(3) EPZ Response Management Training

The purpose of Response Management Training is to ensure that all state and local emergency response personnel are prepared to carry out response activities under actual emergency conditions.

(4) State response management training will include the following:

(a) EOC operations

(b) Planning concepts presented in the VRERP

(c) Notification

(d) Application of Protective Action Guides (PAGs)

(e) Protective actions

(f) Interstate coordination

(g) Public Notification System

(h) Plume plotting

(i) Logistical considerations and resources

(j) Weather data collection and utilization

(k) State agency coordination

(l) Preparation and use of message forms

(m) Processing assistance requests

(n) Walk-through of the specific implementing procedures for state and local EOC operations.

(o) Post-incident or recovery operations

Participation is expected to include all state and local personnel with assigned emergency functions and responsibilities.

(5) Radiological Monitoring Training

Radiological monitoring training for local fire, police, and rescue personnel is conducted by both Vermont Emergency Management and the Department of Health. The training is designed to provide these emergency response personnel with methods of personal protection and ways to limit the effects of radiation.

Selected individuals can be referred to advanced training provided by FEMA and the NRC.

(6) Dispatcher Training

The Notification Manual is the basis for this training. It is available for state and local dispatch centers. There are three components to this training:

(a) A power point presentation is available along with practical exercises for individual dispatchers at their assigned console.

(b) An emergency notification simulator.

(c) Table-top exercises for groups of dispatchers and other involved responders to develop understanding of the overall notification process and everybody's role in it.

(7) Pre-Exercise Training

Pre-exercise training is conducted on a facility-specific basis as appropriate. Facilities include the State EOC, Incident Field Office, EPZ town EOCs, EPZ schools, and the Reception Center. Training addresses, but is not limited to:

exercise objectives as defined in FEMA REP 14; alert and notification; command and control; public notification; emergency worker activities; relocation, re-entry and return; and ingestion pathway activities. This training is coordinated by the Radiological Emergency Response Plan Program, Vermont Emergency Management.

B. Drills

A drill is a supervised period of instruction aimed at developing and maintaining skills in a particular radiological response operation. The various drills are outlined in the following sections.

(1) Communications Drills

Communications between State and local governments within the plume exposure pathway Emergency Planning Zone shall be tested monthly. Additionally, pager carriers in each community respond to a weekly pager test. Communications with Federal emergency response organizations and states within the ingestion pathway shall be tested quarterly. Communications between the nuclear facility, state and local emergency operations centers, and field assessment teams shall be tested annually. Communication drills shall also include the aspect of understanding the content of messages. The utility control room and the two warning points (SWP and ASWP) initiate frequent communications tests with each other.

(2) Medical Drills

A medical emergency drill involving a simulated, contaminated individual will be conducted annually. This drill, which involves the local ambulance service and designated hospital, will be conducted in conjunction with the utility.

(3) Health Physics Drills (Plume Phase)

A drill involving plume team personnel will be conducted semi-annually. This drill involves collecting and analyzing air and water samples.

(4) Radiological Monitoring Drills (Ingestion Pathway/Post Plume)

Off-site radiological monitoring drills will be conducted annually. These drills will include sample (i.e., air, water, vegetation, soil) collection and analysis; provisions for communications between the field teams, laboratory, and State EOC; and record keeping.

(5) Command and Control Drills

During years with no evaluated exercise and prior to evaluated exercises the State EOC and other selected facilities will participate in Command and Control drills to develop or maintain the skills of the participants. Some of these drills will be regularly scheduled drills at Vermont Yankee.

C. Exercises

(1) Exercise and response capabilities. An exercise tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. A full-scale radiological emergency preparedness exercise is held on a biennial basis. The exercise includes full mobilization of state and local personnel and resources in order to verify off-site response capabilities in accordance with this plan and supporting plans. This exercise is conducted in conjunction with the utility. Exercises will be conducted as set forth in NRC and FEMA rules.

Scenarios are developed in conjunction with federal, state, and utility representatives. The scenario will vary from exercise to exercise so that all the major elements of the plan are tested over a six-year period. Minimally, each scenario will include:

(a) Basic objectives of the exercise.

(b) Date(s), time period, and participating organizations.

(c) The simulated events.

(d) A time schedule for real and simulated initiating events.

(e) The real or simulated meteorological data to be used.

(f) Parameters of simulated releases.

(g) A narrative description of how the exercise will be conducted, including a summary of the events, casualties, damage, participating organizations, requirements for accident assessment, and medical support.

(h) Evaluation criteria to be used by observers/evaluators.

(i) Procedures and necessary guidance for participation by observers/evaluators.

(j) The role and responsibilities of controllers in managing the progress of the exercise.

(k) Time, location and evaluator requirements for the oral critique.

(l) Person, by title, who will receive the written observer comments and prepare the formal evaluation report.

(2) Exercise Requirements

Exercise objectives are incorporated into the scenario design for each exercise in accordance with current federal (FEMA) guidance. Exercise objectives are defined in the Radiological Emergency Preparedness Exercise Manual. The criteria used by FEMA to document exercise performance is contained in the Radiological Emergency Preparedness Exercise Evaluation.

The objectives include: emergency classification levels, alert/notification, communications, mobilization of state and local response, direction and control, facility equipment and support, radiological protection, field monitoring, plume projection, protective action decision making, public information, and relocation, reentry, and return. Some objectives need to be demonstrated only once every six years, including conducting both an unannounced and off-hours exercise or drill. Vermont Emergency Management will prepare an extent of play document in conjunction with state and local agencies that describes each objective and how it will be demonstrated. This will be submitted to FEMA and will govern how the exercise is evaluated.

(3) Observers/Evaluators

(a) Exercises will be observed by Federal evaluators and State observers qualified to:

i. Assess the response by each of the government entities, agencies, or organizations involved.

ii. Critique the exercise.

iii. Make recommendations for correcting observed weaknesses and deficiencies.

(b) FEMA will provide evaluators to collect data on the demonstration of exercise objectives and evaluate exercise performance.

(c) Observers/evaluators will be provided with the following information prior to the exercise:

i. Scenario

ii. Observer/evaluator instructions

iii. Exercise control procedures

iv. Evaluator checklist

v. Format for written comments and recommendations

vi. Requirements for the oral critique

(d) Evaluators and observers will observe, evaluate, and critique the exercise.

(e) FEMA (Regional Assistance Committee [RAC] Chair) will prepare a formal report noting deficiencies, areas requiring corrective action, and areas recommended for improvement that will be submitted to the State, NRC, RAC, and licensee.

(4) Corrective Actions

Vermont Emergency Management is responsible for evaluating observer and evaluator comments and working with the appropriate organizations to resolve any outstanding issues. The necessary training, plan and procedure changes, the time schedule for completion, and the person (by title) responsible for the corrective action will be identified. Training and plan or procedural changes, or other actions will be initiated to correct open items identified by the observers and evaluators and to correct areas identified as deficient, requiring corrective action or requiring improvement in the FEMA exercise evaluation report. All activities conducted as a result of corrective actions taken will be reported to Vermont Emergency Management.

22. EPZ TOWN RERP SUMMARIES AND LETTERS OF AGREEMENT

The following Vermont EPZ town RERP summaries are provided as quick reference guides for use by response management personnel involved in local coordination functions. The summaries include population, evacuation routes, access and traffic control points, and reception center locations.

The complete EPZ town RERPs are available at the State EOC and Staging Area. They are considered annexes to the VRERP.

This section also includes a summary of the Letters of Agreement with supporting organizations.

A. Brattleboro Radiological Emergency Response Plan Summary

POPULATION (2010): 11,563

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

Any road or street to I-91, Exit 2 or Exit 3, north on I-91 to Exit 5. Take US Rt 5 north to Bellows Falls Union High School, Westminster, Vermont. (US Rt 5 may be used in lieu of I-91 north).

(3) Traffic/Access Control Points (See Section 14)

NOTE: Both the State and local Traffic and Access Control Points should be considered as a flexible list. These are the points that traffic and access control will probably require. However the situation will cause some of these points not to be staffed and for others to be created. It is vitally important for all involved agencies to coordinate with one another if changes are made.

(4) Reception Center(s)

(a) Bellows Falls Union High School, Westminster, Vermont

B. Dummerston Radiological Emergency Response Plan Summary

POPULATION (2010): 1,960

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

Follow US Rt 5 north to Bellows Falls Union High School, Westminster, VT.

(3) Traffic/Access Control Points (See Section 14)

(4) Reception Center(s)

(b) Bellows Falls Union High School, Westminster, Vermont

C. Guilford Radiological Emergency Response Plan Summary

POPULATION (2010): 1,953

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

Follow town roads north or northeast to VT Rt 9 or US Rt 5. From VT Rt 9, proceed east to I-91 Exit 2. From US Rt 5, proceed north to I-91 Exit 1. From either route, proceed north on I-91 to Exit 5. Take US Rt 5 north to Bellows Falls Union High School, Westminster, VT. (US Rt 5 may be used in lieu of I-91 north)

(3) Traffic/Access Control Points (See Section 14)

(4) Reception Center(s)

(a) Bellows Falls Union High School, Westminster, Vermont

D. Halifax Radiological Emergency Response Plan Summary

POPULATION (2010): 826

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

Follow town roads north, northeast, or east to VT Rt 9 or US Rt 5. From VT Rt 9, proceed east to I-91, Exit 2 then proceed north on I-91, to Exit 5. From either route, proceed north to Bellows Falls Union High School, Westminster, VT. (US Rt 5 may be used in lieu of I-91 north)

(3) Traffic/Access Control Points (See Section 14)

(4) Reception Center(s)

(a) Bellows Falls Union High School, Westminster, Vermont

E. Marlboro Radiological Emergency Response Plan Summary

POPULATION (2010): 974

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

Any road or street to VT Rt 9, then proceed east to I-91, Exit 2.
From Exit 2, proceed north on I-91 to Exit 5, US Rt 5 north to Bellows Falls Union High School, Westminster, Vermont. (US Rt 5 may be used in lieu of I-91 north).

(3) Traffic/Access Control Points (See Section 14)

NOTE: Both the State and local Traffic and Access Control Points should be considered as a flexible list. These are the points that traffic and access control will probably require. However the situation will cause some of these points not to be staffed and for others to be created. It is vitally important for all involved agencies to coordinate with one another if changes are made.

(4) Reception Center(s)

(a) Bellows Falls Union High School, Westminster, Vermont

F. Vernon Radiological Emergency Response Plan Summary

POPULATION (2010): 2,047

RESPONSE MISSION: To adequately warn the population and provide guidance and assistance in reducing or preventing consequences that might affect the lives and/or safety of the people.

(1) Protective Actions

Protective actions (e.g., shelter, evacuation), if ordered will be carried out according to instructions received from the State of Vermont. The Public Notification System (i.e., sirens, weather alert radios, and EAS) will be used to notify the public of the need to take protective actions.

(2) Evacuation Routes

VT Rt 142 or US Rt 5 north to I-91 Exit 1. From either route proceed north on I-91 to Exit 5. Take US Rt 5 north to Bellows Falls Union High School, Westminster, VT. (US Rt 5 may be used in lieu of I-91 north)

(3) Traffic/Access Control Points (See Section 14)

(4) Reception Center(s)

(a) Bellows Falls Union High School, Westminster, Vermont

G. Agreements and Contracts

(1) Yankee Atomic Electric Company and Vermont and Massachusetts (Yankee Rowe)

This Letter of Agreement establishes provisions with the Commonwealth of Massachusetts and State of Vermont regarding the Yankee Plant Defueled Emergency Plan.

(2) Agreement for the Operation of a NOAA Weather Radio Transmitter by Vermont Yankee Nuclear Power Station and Appendix A, Agreement for Activation and Use of NOAA Weather Radio

These agreements provide for the use of the National Weather Service (NWS) NOAA Weather Alert Radios to alert residents living in the plume exposure pathway of the Vermont Yankee Nuclear Power Station in the event of an emergency at the plant.

(3) Vermont Yankee Nuclear Power Station and the States of Vermont, Massachusetts, and New Hampshire

This Letter of Agreement establishes provisions regarding emergency planning and notification and response activities in the event an emergency at the Vermont Yankee Nuclear Power Station.

(4) WTSA - AM/FM - Brattleboro, VT and State of Vermont.

This agreement maintains 24-hour coverage of EAS in the Vermont Yankee Emergency Planning Zone.

(5) Windham Northeast Supervisory Union and State of Vermont

This agreement provides for the use of the Bellows Falls Union High School, Westminster, VT, as a reception center for evacuees.

(6) Vermont Agency of Transportation and Vermont Emergency Management

Letter agreement providing use of Rutland City Airport for federal resources in emergency situations.

(7) Vermont Wing, Civil Air Patrol and Vermont Emergency Management

This agreement provides for the services of CAP during emergencies, including radiological emergencies.

(8) New England Compact on Radiological Health Protection

Agreement among and between the states to provide radiological resources and support in the event of a radiological emergency in any state.

Dates and Signatures on originals are on file at Vermont Emergency Management, 103 South Main St, Waterbury, Vermont 05671-2101.

23. STATE RESPONSE TO YANKEE ROWE

The Yankee Plant in Rowe, Massachusetts is in a permanently shutdown and defueled status. In this condition, no reactor operations can take place. The fuel is stored in a dry cask fuel storage facility. This facility will be used to store the spent fuel until permanent fuel storage facilities are provided by the Federal government. This section of the plan describes the actions the State of Vermont will take in response to an emergency at the Yankee Plant.

A. Emergency Classification

Emergency conditions at the Yankee Plant could result in the declaration of an Unusual Event or an Unusual Event Terminated. An Unusual Event generally characterizes abnormal plant conditions which alone do not constitute a hazard to plant personnel. Any release of radioactive material is below the EPA Protective Action Guideline Exposure Limits.

Emergency Action Levels (EALs) have been established to determine which emergency classification level is appropriate for a given situation that affects the plant. The EALs are contained in the Yankee Emergency Plan Implementing Procedures.

B. Notification

Upon declaration of an Unusual Event or Unusual Event Terminated, the plant Shift Supervisor/Incident Director will notify the State Warning Point (SWP) as soon as possible but within one hour of classifying the emergency. Notification is via the commercial phone. The SWP will notify State Agency personnel as specified in the Notification Manual. Local town notification is not required, but may occur in some circumstances.

C. Response Actions

Upon notification of an Unusual Event, State personnel will activate the State EOC to at least a level 2.

The plant will provide periodic information updates to the state. The state will monitor the situation and assess plant conditions based on information provided by the plant. The plant will terminate the Unusual Event when the plant is restored to a safe and stable condition. The state will be notified of the termination and any on-site recovery/re-entry measures required.

D. Public Information

During an emergency, the Yankee Public Affairs Director will prepare and release news announcements as required. Yankee will not release information to the public until 1) the State of Vermont and Commonwealth of Massachusetts are notified of the emergency, and 2) Yankee and public safety officials exchange and coordinate information for release to the public.

E. Procedures

For detailed procedures, refer to the current Yankee Rowe Notification Guide.

24. PLAN AND PROCEDURES CROSS REFERRAL

Implementing Procedure	Plan Section
Department of Public Safety	
• Vermont Emergency Management	7, 8, 12, 16, 17, 18, 20, and 21, and Pages iv-xii and xix-xx
• Vermont State Police	7, 8, 13, 14, and 20
• Criminal Justice Services	7, 8, and 20
Department of Health	
•Division of Radiological Health	7, 8, 10, 11, 12, 16, 18, and 20
•Emergency Medical Services	7, 8, and 19
•Laboratory	10
Public Service Department	8, 10, 12
Agency of Human Services	7, 8, 15
Agency of Agriculture	8 and 10
Agency of Transportation	7, 8, 13, and 14
Agency of Natural Resources	
• Department of Environmental Conservation	8 and 10
Vermont National Guard	7 and 8
Civil Air Patrol	7 and 8
American Red Cross	8 and 15

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25. NUREG-0654 CROSS REFERENCE

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
A. Assignment of Responsibility	
1. a. Identify all response organizations for Emergency Planning Zones.	Page xix, 8.A.(1), 8.A.(2), 8.A.(3), 8.A.(4), 8.A.(5), and 8.A.(6)
b. Organization and sub-organization concepts of operations.	8.A.(1), 8.A.(2), 8.A.(3), 8.A.(4), 8.A.(5), and 8.A.(6)
c. Interrelationships of organizations (block diagram).	Figures 8-1, 8-2, and 8-3
d. Identify the individual in charge of emergency response by title.	Page xxi, 8.A.(1) and 8.A.(2)(b)
e. Provide 24-hour emergency response and manning of communication links.	7.A.(1), 8.A.(1), 8.A.(2)(b), 8.A.(2)(i), 8.B., 8.B.(1)(a), and 8.A.(6)
2. a. Specify functions and responsibilities of major elements and essential individuals.	8.A.(2); Table 8-1; and Page xix-xx
b. Legal basis for authority.	4 and Page xxi
3. Written agreements and legal instruments.	21.F.
4. 24-hour operations on a protracted basis and responsible official.	8.A.(1), 8.A.(2)(b), 8.A.(2)(i), and 8.B.(1)(a)
B. On-Site Emergency Organization	Not Applicable - Addressed in Licensee Plan
C. Emergency Response Support and Resources	
1. a. Persons by title authorized to request federal assistance.	18.A.
b. Federal resources expected.	18.A.
c. Resources to support federal response.	18.A.
2. a. Representative at EOF	8.B.(2)(a) and 8.C. (Alert Part C - State Actions)
b. Licensee representative at principal off-site Emergency Operations Centers (EOCs).	Not Applicable - Licensee Responsibility
3. Laboratories and capabilities.	8.B.(1)(d), 10.A.(3), and 18.A.
4. Organizations, facilities, and individuals that can be used in an emergency.	8.A.(2), 8.A.(3), 8.A.(4), 8.A.(5), 8.A.(6), 8.B.(1), 8.B.(2), 18.A. and 18.B.

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
D. Emergency Classification System	
1. Establishment of Emergency Classification Levels and Emergency Action Levels by licensee.	Not Applicable - Licensee Responsibility
2. Initiating conditions.	Not Applicable - Licensee Responsibility
3. Emergency classification and emergency action level scheme established consistent with utility.	2.B.
4. Procedures on emergency actions.	2.B., 8.A.(1), 8.C., and 22
E. Notification Methods and Procedures	
1. Procedures for notification of response organizations including means for verification of messages.	7.A., 7.A.(1), and 8.C.
2. Procedures for alerting, notifying, and mobilizing emergency personnel.	7.A., 7.A.(1), and 8.C.; Figures 7-1 and 7-2
3. Initial messages from plant.	Not Applicable - Licensee Responsibility
4a-n. Follow-up messages from plant.	Not Applicable - Licensee Responsibility
5. Dissemination of initial and follow-up information to the public.	7.A.(2), and 17.A.
6. Administrative and physical means for notifying and providing prompt instructions to the public in EPZ.	7.A.(2), 12.D., 17.A., and 17.A.(1)
7. Written messages to the public for protective action instructions.	7.A.(2), 17.A.(1), and Radiological Emergency Response, Emergency Alert System Messaging
F. Emergency Communications	
1. a. 24-hour capability for notification and activation of the emergency response network, including 24-hour manning of communication links.	7.A.(1)
b. Communications with contiguous state/local governments within the EPZs.	7.B.(1), 7.B.(2), and 7.B.(3)
c. Communications with federal response organizations.	7.B.(4)
d. Communications between the nuclear facility and the Emergency Operations Facility, and State and local EOCs and	7.B.(1), 7.B.(2), and 7.B.(5)

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
radiological monitoring teams.	
e. Alerting and activating emergency response personnel.	7.A.(1) and Figures 7-1 and 7-2
f. Provision of licensee communications with NRC.	Not Applicable - Licensee Responsibility
2. Communication links with fixed and mobile medical support facilities.	7.B.(1)(h) and 7.B.(6)
3. Periodic testing of the Emergency Communications System.	7.C.
G. Public Education and Information	
1. Periodic dissemination of emergency information to the public.	17.B.
2. Public information program for permanent and transient populations in EPZ.	17.B.
3. a. Points of contact and physical locations designated for use by news media during emergency.	8.A.(2)(b) and 17.A.(2)
b. Provision of space for news media at the EOF by the licensee.	Not Applicable - Licensee Responsibility
4. a. Designated spokesperson with access to necessary information.	8.A.(2)
b. Arrangements for exchange of information between spokespersons.	17.A.(2)
c. Rumor control.	17.A.(3)
5. Annual media orientation.	17.C.
H. Emergency Facilities and Equipment	
1. Licensee shall establish a Technical Support Center (TSC).	Not Applicable - Licensee Responsibility
2. Licensee shall establish an Emergency Operations Facility (EOF).	Not Applicable - Licensee Responsibility
3. Establishment of emergency operations center.	8.A.(3), and 8.C.
4. Activation and staffing of facilities and centers described in the plan.	8.A.(2), 8.B.(1), 8.B.(2), and 8.C.
5a-d. Licensee establishment of on-site monitoring systems.	Not Applicable - Licensee Responsibility

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
6a-c. Licensee acquisition of data from off-site monitoring and analysis equipment.	Not Applicable - Licensee Responsibility
7. Radiological emergency equipment.	8.B.(1), 10.B.(1), and 16
8. Meteorological instrumentation/data.	9 (information)
9. On-site Operations Support Center.	Not Applicable - Licensee Responsibility
10. Periodic radiological equipment calibration, inventory, and inspection.	16.E.
11. Emergency kit identification.	Implementing Procedures
12. Central point for receipt and analysis of field monitoring data and samples.	8.B.(1)(a) and 10.B.(2)
I. Accident Assessment	
1. Plant systems and parameters.	Not Applicable - Licensee Responsibility
2. Initial and continuous accident assessment by the licensee.	Not Applicable - Licensee Responsibility
3a-b. Source term and magnitude of release.	Not Applicable - Licensee Responsibility
4. Relationship between effluent monitor readings and on-site and off-site exposures and contamination for various meteorological conditions.	Not Applicable - Licensee Responsibility
5. Licensee acquisition and evaluation of meteorological information.	Not Applicable - Licensee Responsibility
6. Methodology to determine release rate/projected doses.	Not Applicable - Licensee Responsibility
7. Capability and resources for plume EPZ field monitoring.	9, 11.2.1, 11.2.2, and 10.B.(3)
8. Assessment of potential magnitude and locations of radiological hazards.	7.B.(5)(a), 8.A.(2)(e),(f), and (k), 10.B.(1), 10.B.(2), 10.B.(3), and 10.D.
9. Capability to detect and measure radioiodine concentrations.	10.B.(2)
10. Means for relating measured parameters to dose rates and gross measurements.	10.A., 10.C., and 10.D.
11. Airborne plume tracking.	10.B.(2), 18.A. and 18.B.
J. Protective Responses	

NUREG-0654/FEMA-REP-1 Planning Criteria	**Plan Section/Reference**
1a-d. Means and time to warn on-site individuals.	Not Applicable - Licensee Responsibility
2. Evacuation routes and transportation for on-site individuals to a suitable off-site location.	13 and 15
3. Monitoring of people evacuated from site.	Not Applicable - Licensee Responsibility
4. Evacuation of on-site nonessential personnel at SAE or GE.	Not Applicable - Licensee Responsibility
5. On-site accountability.	Not Applicable - Licensee Responsibility
6a-c. Arrangements for respiratory protection, protective clothing, and radioprotective drugs for individuals remaining or arriving on-site.	Not Applicable - Licensee Responsibility
7. Licensee protective action recommendations.	Not Applicable - Licensee Responsibility
8. Evacuation Time Estimates in Licensee Plan.	Not Applicable - Licensee Responsibility
9. Capability to implement protective measures based on PAGs and other criteria.	8.A.(2), 10.C., 11, 12.A., 12.B., 12.C., and 12.D.
10. a. Maps showing the following: $ Evacuation Routes $ Evacuation Areas $ Sampling and Monitoring Points $ Reception Centers and Congregate Care Facilities	8.B.(1)(a), 10.B.(2), 15, and Table 14-1
b. Population distribution in EPZ by evacuation areas.	Tables 6-2 and 6-3; Figures 6-1, 6-2, 6-3, 6-4, and 6-5
c. Means for notification of transient and resident populations.	7.A.(2) and 17.A.
d. Protection of mobility impaired.	16.B.(4)
e. Use, quantities, storage, and distribution of radioprotective drugs.	16.B.(4) and 16.B.(5)
f. State Health Department decisions on radioprotective drugs for emergency workers.	16.B.(4)
g. Means of relocation.	13
h. Reception Centers and Congregate Care Facilities in host areas outside ten-mile EPZ area.	15

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
i. Projected traffic capacities of evacuation routes during emergencies.	Evacuation Time Estimate Study
j. Responsibility for and control of access to evacuated areas.	12.A.(4), 14, and Tables 14-1 and 14-2
k. Identification of and means for dealing with potential impediments to use of evacuation routes.	8.A.(2)(h) and 13
l. Evacuation time estimates.	Evacuation Time Estimate Study
m. Basis for protective action recommendations.	10.C., 11, 12.A., 12.1.1, 12.1.2, 12.1.3, 12.2.1, 12.D., and Tables 11-1 and 12-1
11. Protective measures for Ingestion Pathway Zone.	12.A. and State of Vermont Ingestion Pathway Plan
12. Means for registering and monitoring evacuees.	15 and Bellows Falls Union High School Reception Center Plan
K. Radiological Exposure Control	
1a-g. On-Site Exposure Guidelines.	Not Applicable - Licensee Responsibility
2. On-Site Radiation Protection Program.	Not Applicable - Licensee Responsibility
3. a. 24-hour capability for determining emergency worker doses and provisions for distribution of dosimeters.	16.A., 16.B., and 16.B.(1)
b. Frequency of dosimetry readings and maintenance of emergency worker dose records.	16.A., 16.B., 16.B.(1), and 16.B.(2)
4. Decision chain for authorizing emergency workers to exceed Protective Action Guides.	16.A., 16.B.(3), and Table 16-1
5. a. Action levels for decontamination.	16.D.
b. Means for decontamination of wounds, supplies, and equipment, and for waste disposal.	16.C., 16.C.(1), 16.C.(2), and 16.D.
6a-c. On-site contamination control measures.	Not Applicable - Licensee Responsibility
7. Decontamination of relocated on-site personnel.	Not Applicable - Licensee Responsibility
L. Medical and Public Health Support	
1. Local and backup hospitals for medical	19.B.

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
evaluation of radiation exposure and uptake.	
2. On-site first aid capability.	Not Applicable - Licensee Responsibility
3. List of medical service facilities capable of providing medical support for contaminated injured individuals.	19.B.
4. Transport of contaminated injured victims to medical facilities.	19.A. and 19.B.
M. Recovery and Re-Entry Planning and Post-Accident Operations	
1. Procedures for re-entry and recovery and relaxing of protective measures.	State of Vermont Ingestion Pathway Plan
2. Facility recovery organization.	Not Applicable - Licensee Responsibility
3. Means for keeping response personnel informed of recovery operations.	8.A.(2)(b) and State of Vermont Ingestion Pathway Plan
4. Periodic estimation of total population exposure.	10.A.(2), 10.C.
N. Exercise and Drills	
1. a. Exercises as set forth in FEMA and NRC rules.	20.C.
b. Mobilization of resources under varying scenarios.	20.C. and 20.C.(1)
2. a. Communication drills.	20.B.(1)
b. Fire drills.	Not Applicable - Licensee Responsibility
c. Medical emergency drills.	20.B.(2)
d. Radiological monitoring drills.	20.B.(3)
e. (1) Health physics drills.	20.B.(4)
(2) Analysis of in-plant liquid samples	Not Applicable - Licensee Responsibility
3. a. Drill and exercise objectives.	20.C. and 20.C.(1)
b. Date, time, place, and participating organizations.	20.C.
c. Simulated events.	20.C.
d. Time schedule of events.	20.C.

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
e. Narrative summary.	20.C.
f. Arrangements for materials to observers.	20.C. and 20.C.(2)
4. Exercise evaluation and critiques.	20.C.(2)
5. Implementing corrective actions.	20.C.(2) and 20.C.(3)
O. Radiological Emergency Response Training	
1. Training of appropriate individuals.	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
a. Training for off-site agencies who may respond on-site.	Not Applicable - Licensee Responsibility
b. Off-site response agency participants.	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
2. On-site practical drills as part of training program.	Not Applicable - Licensee Responsibility
3. Licensee First Aid Team Training	Not Applicable - Licensee Responsibility
4. Training program established for:	
a. Directors or coordinators of response organizations.	20.A., 20.A.(1), 20.A.(2), and 20.A.(4)
b. Accident assessment.	20.A., 20.A.(1), 20.A.(2), and 20.A.(4)
c. Monitoring teams and analysis personnel.	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
d. Police, security, and fire fighting personnel.	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
e. Repair and damage control teams.	Not Applicable - Licensee Responsibility
f. First aid and rescue personnel.	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
g. Local support services	20.A., 20.A.(1), 20.A.(2), 20.A.(3), and 20.A.(4)
h. Medical support personnel.	20.A., 20.A.(1), 20.A.(2), and 20.A.(4)
i. Licensee Headquarters personnel	Not Applicable - Licensee Responsibility
j. Emergency communications personnel.	20.A., 20.A.(1), 20.A.(2), and 20.A.(4)
5. Provisions for initial/retraining of emergency response personnel.	20.A.

NUREG-0654/FEMA-REP-1 Planning Criteria	Plan Section/Reference
P. Responsibility for Planning Effort	
1. Training for individual responsible for planning effort.	20.A.
2. Title of person with responsibility for emergency planning.	Page xxi
3. Designation of Emergency Planning Coordinator.	Page xxi
4. Updating of plans and agreements.	Pages xi and xiii
5. Plan and procedure update dissemination.	Pages xiii, xv an xvii
6. Supporting documents.	4
7. Procedures required to implement the plan and appropriate plan section reference.	23
8. Table of Contents and NUREG-0654 Cross Reference.	Pages i-v and 24
9. Independent Program Reviews by licensee.	Not Applicable - Licensee Responsibility
10. Quarterly updating of emergency telephone numbers in procedures.	Page xi

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26. PROCEDURES REQUIRED TO IMPLEMENT THE PLAN

The procedures required to implement this plan are contained in two different groups:

Emergency Operations Center (EOC) Support Staff and
Responsible Agency Representatives.

These two groups are published in separate volumes. Many of the Support Staff procedures change as new technologies or equipment are adopted.

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27. GLOSSARY OF COMMONLY USED WORDS

ACCESS CONTROL The establishment of roadblocks, road barriers, or other means to control unauthorized public entry into designated areas.

ACCESS CONTROL POINT (ACP) A key intersection or area of road designated to restrict traffic into and within the Plume Exposure Pathway (EPZ) as part of access control.

AGRICULTURAL FACILITY Any building or tract of land used to grow crops or raise livestock for production of food storage and food processing operations.

ALARA The acronym for As Low As Reasonably Achievable. The radiation protection philosophy of minimizing radiation exposure to the lowest practical level.

ALERT An ALERT is an emergency classification which indicates events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. It is the next to the lowest level of severity of the four emergency classifications.

ALTERNATE STATEWIDE WARNING POINT (ASWP) A State Police Office in Derby, VT, that can receive and transmit notification should communications at the State-wide Warning Point fail.

ALPHA PARTICLE A heavy, positively charged particle which is highly ionizing but has almost no penetration effect. It can be stopped by a sheet of paper or human skin. The chief danger from alpha particles is from internal exposure.

BACKGROUND RADIATION Radiation from natural sources. Normal background radiation for Americans is about 300 millirems per year.

BETA PARTICLE An electron, of either positive or negative charge, that has been emitted by an atomic nucleus or neutron in a nuclear transformation. It can travel several feet in the air, and can ionize human skin. It can cause damage by internal and external radiation.

BOILING WATER REACTOR (BWR) A nuclear reactor in which water is boiled in the reactor vessel and the resulting steam drives a turbine to generate electricity.

BUFFER ZONE Refers to an area adjacent to a restricted zone, to which residents may return, but for which protective measures are recommended to minimize exposure to radiation.

CANCELLATION Cancellation of school until further notice.

CLADDING The outer jacket of nuclear fuel rods. It prevents corrosion of the fuel by the coolant and the release of fission products into the coolant. The most common cladding material is a zirconium alloy.

COLD SHUTDOWN Condition of a reactor when the fission process has been halted and decayed heat in the core coolant has dropped below the boiling point of water.

CONDENSOR Apparatus where steam which turns the turbines is cooled and condensed to a liquid state for return to the steam generator.

CONGREGATE CARE The supportive action that entails the provision of shelter, food, and other essential services for evacuees.

CONGREGATE CARE CENTER (CCC) A facility for temporary housing, care, and feeding of evacuees.

CONSEQUENCES The results or effects (especially projected dose rates) of a release of radioactive material to the environment.

CONTAINMENT VESSEL Steel and reinforced concrete structure housing the nuclear reactor and steam generator.

CONTAMINATION The deposition of radioactive substances on the surfaces of personnel or objects.

CONTROL ROD A rod, plate, or tube containing a material that readily absorbs neutrons. By absorbing neutrons, a control rod prevents the neutrons from causing further fission.

CONTROL DLR Control DLRs are used to measure background radiation history during the storage period.

COOLANT Liquid or gas circulated through a nuclear reactor to remove or transfer heat. Common coolants are water, heavy water, carbon dioxide, liquid sodium, and sodium-potassium alloy.

CORE The part of the nuclear reactor containing the fuel assemblies which generate heat by fission.

CORE MELT ACCIDENT A postulated reactor accident in which the fuel melts because of overheating.

DECAYED HEAT Heat generated by decaying radioactive products of the fission process when fission has been halted in the reactor core.

DECONTAMINATION The removal of radioactive substances from the surface of personnel or objects (required if surface contamination measured by survey meter is greater than 1000 cpm above background radiation).

DERIVED RESPONSE LEVEL A calculated radionuclide concentration in foodstuffs, milk, and water, which if ingested without any protective actions, would result in a projected dose commitment equivalent to the preventive or emergency PAGs.

DIRECT READING DOSIMETER (DRD) A Direct Reading Dosimeter (DRD) is an instrument which measures total gamma radiation exposure.

DOSE An accumulation of radiation energy absorbed in material.

DOSE RATE The accumulation of radiation exposure over a given period of time, usually hourly.

DOSIMETER CHARGER A device used to zero direct reading dosimeters prior to issuance.

DOSIMETER OF LEGAL RECORD (DLR) A dosimeter of legal record (DLR) is a permanent record dosimeter used to measure total beta/gamma exposure. DLRs are not readable by the emergency worker and must be processed (read) in a laboratory.

DOSIMETRY Devices that measure or record personnel exposure to radiation.

DOSIMETRY PACKET A package that contains dosimetry, KI information card, and forms for measuring and documenting the workers exposure to radiation.

DRILL A supervised instruction period aimed at developing and maintaining skills in emergency response.

EMERGENCY ACTION LEVELS (EALs) Specific instrument readings, system or event observation, and/or radiological levels which initiate event classification. These are specific threshold readings or observations indicating system failures or abnormalities. A manual describing these EALs in lay person's language is published by Vermont Yankee and distributed by Vermont Emergency Management to notification system responders.

EMERGENCY ALERT SYSTEM (EAS) The nationwide network of radio stations, television stations, and cable providers designated to provide emergency information and instructions to the public in the event of an emergency. The primary activation site for EAS is at the Vermont State Warning Point at the Public Safety Department in Waterbury. The backup location is at the State EOC, also at the Public Safety Department in Waterbury.

EMERGENCY CLASSIFICATION LEVEL (ECL) The level at which an incident at a nuclear power plant has been classified by the plant operator. Each level (ECL) triggers a set of predetermined actions by the off-site Emergency Response Organization. The four levels in ascending severity are:

UNUSUAL EVENT
ALERT
SITE AREA EMERGENCY
GENERAL EMERGENCY

EMERGENCY CORE COOLING SYSTEM (ECCS) A series of backup safety systems designed to dump thousands of gallons of cooling water into the reactor, thus preventing a core meltdown in the event the normal core cooling system fails.

EMERGENCY OPERATION CENTER (EOC) Locations designated by state/local emergency response organizations as emergency plan assembly areas for their respective staffs. These facilities are the central command and control points for state and local response organizations.

EMERGENCY OPERATIONS FACILITY (EOF) A center established by the utility to coordinate the flow of technical information from the on-site to the off-site emergency response organization. It is in the EOF that accident assessment activities are coordinated among state, local, federal, and utility personnel.

EMERGENCY PLANNING ZONES (EPZ) The areas covered by the Radiological Emergency Response Plan. There are two zones. The boundary of the Plume Exposure Pathway EPZs is chosen to accommodate practical planning considerations and to conform as closely as possible to a 10-mile radius. As a planning concept, if part of a town is in an EPZ, the entire town is considered within the zone. The actual EPZ boundary may be more or less than 10 miles from the plant. The boundary for the Ingestion Exposure Pathway EPZ is a 50-mile radius from the plant and includes the 10-mile EPZ.

EMERGENCY PROTECTIVE ACTIONS Actions taken to isolate food to prevent its introduction into commerce and to determine whether condemnation or other disposition is appropriate. The FDA Emergency PAGs are 15 rem to the thyroid and 5 rem, whole body and other organs.

EMERGENCY RESPONSE DATA SYSTEM (ERDS) Provides a direct electronic transmission of a set of reactor and system parameters from the nuclear power station to the Nuclear Regularly Commission (NRC) during an emergency at the facility. NRC uses ERDS to monitor the facility with respect to their recommendations for offsite protective actions. States having or sharing in a ten-mile EPZ are also provided access to ERDS. Typically states assign nuclear engineers and health physists to use ERDS.

EMERGENCY RESPONSE ORGANIZATION (OFF-SITE) The combination of state, local, federal, and private agencies designed specifically to provide off-site capability to implement emergency responses.

ENTRY TO RECOVERY Refers to the process of reducing radiation exposure rates and concentrations of radioactive material in the environment to acceptable levels for return by the general public for unconditional occupancy or use after the emergency phase of a radiation emergency

EVACUATION One of two protective actions. The act of moving individuals away from the path of the plume to avoid exposure to airborne or radioactive materials.

EVACUATION ROUTES Those roadways identified in state and local plans as the principal routes leading from the Plume Exposure Pathway EPZ for use by vehicles in the event of an accident requiring evacuation.

EXERCISE An evaluated event involving emergency response to a simulated radiological emergency at a nuclear power plant. The purpose of an exercise is to evaluate integrated responses of all or a portion of the components in an emergency response organization.

EXPOSURE LIMITS Established limits to administratively control exposures to radiation.

FUEL ASSEMBLIES Separate bundles of fuel rods. A nuclear reactor core contains scores of fuel assemblies and more than 100,000 fuel rods.

FUEL RODS Long hollow rods, usually of zirconium alloy, into which are packed thimble-sized pellets of uranium.

GAMMA RAYS Penetrating electromagnetic radiation emitted in radioactive decay, similar to X-rays.

GENERAL EMERGENCY (GE) A GENERAL EMERGENCY is an emergency classification which indicates that events are in process or have occurred which involve actual or imminent substantial degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels beyond the immediate site area. It is the most severe of the four emergency classifications.

HALF-LIFE Term used to describe the time rate at which radioactive materials decay into stable elements.

HOST FACILITY Any facility outside of the EPZ to which special facility residents or residents are evacuated.

INCIDENT FIELD OFFICE (IFO) The Incident Field Office (IFO), located at the Agency of Transportation Regional Facility on U.S. Route 5, Putney Road, Dummerston, Vermont, is the location in close proximity to the Plume Exposure EPZ from which Vermont Emergency Management will coordinate with federal, state, and local Emergency Response Organizations. The IFO supplements the emergency response capability of the State EOC in Waterbury.

INGESTION EXPOSURE PATHWAY ZONE a.k.a. the INGESTION PATHWAY ZONE (IPZ) The principal exposure in this area would be from consumption of contaminated water or foods such as milk and fresh vegetables. The pathway is an area fifty (50) miles in radius from the nuclear power plant. The time of potential exposure could range in length from hours to months.

INITIAL NOTIFICATION The first communication from the Utility Control Room to the off-site Emergency Response Organization that an incident has occurred at the power plant which may involve activation of the RERP.

IONIZING RADIATION Radiation which causes ionization of atoms and molecules.

ISOTOPE Different forms of the same chemical element which are distinguished by having different numbers of neutrons in the nucleus. A single element may have many isotopes.

LOSS-OF-COOLANT ACCIDENT (LOCA) An accident that can result from an opening, such as a pipe break or a stuck open relieve valve, in the primary cooling system. At the first sign of a LOCA, the reactor would shut down automatically.

MELT-DOWN The overheating of a reactor core, usually as a result of loss of coolant, to the extent that uranium melts through the metal cladding on the fuel rod. It is believed in extreme cases that hat in the core could become so intense that the core would melt through the reactor vessel and down through the concrete floor of the containment vessel.

MILLIREM (Mrem) A measure of radiation. A millirem is one-thousandth of a rem, the basic measure of radiation. A normal chest X-ray exposes a person to between 20 and 30 millirems.

MONITORING The process (survey) of passing a radiation detection instrument just above the surface of a person or object in order to detect the presence of contamination.

NATIONAL WARNING SYSTEM (NAWAS) The Federal Emergency Management Agency (FEMA) operates this special purpose telephone system to disseminate disaster warnings to Federal, State, and local government agencies and selected military organizations. There are two circuits: a national circuit and the State circuit. The national circuit has two phones in Waterbury, Vermont. One at the State Warning Point

and one at the Emergency Management Office. The State circuit has several connections throughout Vermont.

NATIONAL WEATHER SERVICE (NWS) There are two different NWS offices that service Vermont. The NWS office, located in Albany, New York, is responsible for the activation of the NOAA weather alert radios located in the 10 mile EPZ and providing weather services for the two Southern Counties in Vermont. The NWS office located at the Burlington International Airport, Burlington, Vermont, provides service to the remainder of Vermont. The National Weather Service is a subordinate agency of NOAA.

NEWS MEDIA/JOINT INFORMATION CENTER A facility located at Vermont Yankee corporate headquarters, that provides a centralized location for holding joint state, federal, and licensee news briefings. The public information representatives at the News Media Center will gather, coordinate, and release information as it becomes available.

NOAA The **N**ational **O**ceanic and **A**tmospheric **A**dministration, is the parent agency for the National Weather Service. The "NOAA Tone Alert Radios" are activated by the National Weather Service.

NUCLEAR ALERT SYSTEM (NAS) A dedicated microwave system utilized as the primary means of communication between state and utility during an emergency.

NUCLEAR REACTOR The device in which a fission chain reaction can be initiated, maintained and controlled. Heat from the fission process produces steam which is used to turn generators for the production of electricity.

NUCLIDE A general term applicable to all atomic forms of the elements. Not a synonym for isotope.

OFF-SITE The area beyond the authority of the licensee of a nuclear facility.

ON-SITE The area including and around the nuclear facility under the authority of the licensee.

PATIENT COORDINATION UNIT – Located at the Health Operations Center(HOC) and the Department of Disabilities, Aging & Independent Living (DAIL), its responsibility is to locate hospital and nursing home beds in coordination with the Transportation Coordinator at the Incident Field Office, to accommodate the transfer of patients and residents from the EPZ area in the event of an incident at the nuclear power plant.

PLANNING BASIS Guidance in terms of (1) size of planning area (distance), (2) time dependence of release, and (3) radiological characteristics of releases.

PLUME An elongated and usually open and mobile mass of material that is dispersing through the atmosphere. In the case of a nuclear power plant, the material consists of radioactive particles and gases.

PLUME EXPOSURE PATHWAY (also referred to as the Emergency Planning Zone)An area, 10 miles in radius from the nuclear power plant where the principal exposure sources are from: (a) whole body external exposure to gamma radiation from the plume and from

deposited materials, and (b) inhalation exposure from the passing radioactive plume. Time of potential exposure could range in length from hours to days.

POPULATION, PERMANENT RESIDENT All members of the public who reside in the ten-mile EPZ.

POPULATION, SPECIAL NEEDS Individuals in the general population who are unable to take protective actions on their own. These individuals may require transportation and/or assistance to move to the Reception Center or other facilities located outside of the EPZ.

POPULATION, TRANSIENT That segment of the public residing outside the EPZ, but visiting areas inside the EPZ, e.g., tourists, employees, etc.

POTASSIUM IODIDE (KI) Potassium Iodide (chemical symbol KI) is a thyroid blocking agent that prevents the accumulation of radioiodine by blocking its absorption by the thyroid gland with the presence of stable (nonradioactive) iodine.

PRECAUTIONARY ACTION(S) An action taken in advance to protect against plant conditions or other hazards that may escalate faster than the public's ability to react. This action is designed to protect people, animals, and the environment.

PRECAUTIONARY TRANSFER It is a precautionary action in which the movement of one or more segments of the population to the reception center or a host facility occurs prior to an evacuation of the general public. Likely population segments include children in schools and child care centers and patients in health care facilities.

PREVENTATIVE PROTECTIVE ACTIONS Protective actions to prevent or reduce contamination of milk, water, and/or food products. The FDA Preventive Protective Action Guides (PAGs) are 1.5 rem to the thyroid and 0.5 rem whole body and other organs.

PROJECTED ACTION An action taken to avoid or reduce a projected dose.

PROJECTED DOSE An estimate of the radiation dose which affected population groups could potentially receive through direct exposure to the plume if protective actions are not taken.

PROTECTIVE ACTION GUIDE (PAG) Projected radiological dose values to individuals in the general population which warrants protective action following an uncontrolled release of radioactive material.

PROTECTIVE ACTION GUIDELINES The numerically projected dose level criteria of radiation which act as trigger points for initiating protective response actions.

PROTECTIVE ACTION RECOMMENDATION (PAR) Those actions that are recommended by the utility to the state in the event of an emergency, to protect the health and safety of the public.

PROTECTIVE ACTION(S) Emergency measures to be taken by the public to mitigate the consequences of an accident by minimizing the radiological exposures that would likely occur if such actions were not undertaken.

QUALIFIED REPRESENTATIVE Designated trained state agency representative with the authorityto respond and act in the name of the agency in lieu of or until replaced by an agency head.

RACES(**R**adio **A**mateur **C**ivil **E**mergency **S**ervice) - Licensed volunteer Radio Amateur (HAM) Communications personnel, equipped and affiliated with the state and local Emergency Management Agencies.

RADIATION The propagation of energy in the form of particles and electromagnetic ions. The emission of gamma rays and beta particles from a radioactive substance.

RADIOACTIVITY The property of certain nuclides of spontaneously emitting particle or gamma radiation, emitting x-radiation following electron capture, or undergoing spontaneous fission in the process of radioactive decay.

RADIOLOGICAL EMERGENCY RESPONSE PLAN (VT RERP) The State of Vermont emergency response plan, to be implemented in the event of a radiological emergency at a nuclear power plant.

RADIOLOGICAL OFFICER A person who coordinates for radiological exposure control activities in a given community.

REACTOR VESSEL The steel-walled container housing the nuclear reactor fuel core and control rods.

RECEPTION CENTER A facility designated to provide evacuee and vehicle monitoring, decontamination, registration, assignment to congregate care facilities, and reunification assistance. Bellows Falls Union High School (BFUHS) located in the town of Westminster, VT., has been designated as the Vermont Reception Center, and Twin Valley High School located in the town of Wilmington has been designated as the Western Reception Center.

RECOVERY Refers to the process of reducing radiation exposure rates and concentrations of radioactive material in the environment to acceptable levels for return by the general public for unconditional occupancy or use after the emergency phase of a radiation emergency

RE-ENTRY The temporary entry into a restricted zone under controlled conditions, *i.e.,* for a farmer returning to care for livestock.

RELIEF VALVE A valve that automatically opens to release steam and prevent excessive pressure buildup.

RELOCATION A protective action taken in the post-emergency phase through which the individuals not already evacuated during the emergency phase are asked to vacate a

contaminated area to avoid chronic radiation exposure from deposited radioactive material.

REM Stands for **R**oentgen **E**quivalent **M**an. A unit of dose equivalent: the unit of dose of any ionizing radiation that produces the same biological effect as one Roentgen of X-ray or gamma ray dosage.

RESTRICTED ZONE Refers to an area of controlled access from which the population has been evacuated or relocated.

RETURN The reoccupation of areas previously restricted to the public when the radiation risk has been reduced to acceptable levels.

ROENTGEN A unit for measuring the amount of energy deposited in air by X or gama radiation. For this plan, roentgen and rem can be considered equivalent.

ROUTE ALERTING Route Alerting is a supplement to the public notification system (siren system and tone alert radios) which is implemented in the event of a public notification system failure. It is a municipal responsibility and is accomplished by municipal route alert teams traveling in vehicles along pre-planned routes delivering the following message: "There is an emergency at the Vermont Yankee Nuclear Power Station in Vernon; please tune to your Emergency Broadcast System."

SAMPLING The collection of specimens of materials at field locations.

SCRAM A term denoting fast shutdown of the reactor. The acronym stands for **S**afety **C**ontrol **R**od **A**xe **M**an. In the early days of reactor research the control rods that would stop the reaction were suspended over the reactor by a rope. When the reaction got dangerous, a designated worker with an axe would cut the rope and the rods would fuel into place and stop the reaction. Modern reactors are much more sophisticated but the term "SCRAM" has survived.

SITE The property owned by the utility in the immediate area of the nuclear power plant site.

SHELTER A protective action, advising the at-risk populations to go in, or remain indoors, as protection from a potential or actual radiological release from a nuclear power plant.

SHELTER-IN-PLACE The second and least preferred protective action is used only if evacuation prevents a substantial risk because of weather or road conditions. The action taken by the public to take advantage of the protection against radiation exposure afforded by remaining indoors with outside ventilation systems turned off and windows closed, during and following the passage of the radioactive plume.

SHIELDING Material used to protect workers and equipment from exposure to radiation.

SITE AREA EMERGENCY (SAE) An emergency classification which indicates events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary. It is the next to the highest of the four emergency classifications.

SOURCE TERM Radioisotope inventory of the reactor core, or radioisotope release to the environment, often as a function of time.

SPECIAL ALERTING Special Alerting is a supplement to the Tone-Alert Radio System and is used to provide emergency notification to "Special Needs" individuals, specific facilities, campgrounds, recreation areas, or geographic areas of concern.

SPECIAL FACILITIES Public & private schools, child care centers/nurseries, hospitals, & nursing homes, or other facilities responsible for, or occupied by, special populations or groups.

STAGING AREA A location set up at or near an incident where resources can be placed while awaiting an assignment. The State Transportation Staging Area is a type of staging area. There may be more than one staging area per incident if required.

STANDBY STATUS A term used to describe the level of readiness of emergency personnel. It indicates that personnel have been notified and are available to activate duty stations if called upon.

STATE The State of Vermont.

STATE WARNING POINT (SWP) The state designated point to receive and transmit initial notification from a nuclear power plant of a radiological emergency. The SWP is a State Police Office in Rockingham, VT

SUPPORT AGENCIES State, local, and private agencies which provide personnel, equipment, facilities, or special knowledge to support the implementation of the emergency response.

SURVEY METER Radiation detection instrument used for monitoring purposes. The CDV-700 instrument is an example used.

TERMINATION A declared emergency classification is canceled because the underlying condition(s) has been fixed and the plant is considered safe. In a lower level condition (e.g., Unusual Event) the plant may continue to generate power, while in a higher level (e.g., General Emergency) it will not. Emergency conditions do not de-escalate in sequence. Once declared, all of the problems must be fixed or the plant rendered safe before the condition is canceled. The act of canceling that condition is called "Termination". It includes notifying everyone that has been notified of the initial declaration that the emergency classification has been terminated.

THYROID BLOCKING The use of potassium iodide (KI) or other suitable drug for the purpose of saturating the thyroid gland with stable iodine and thereby preventing thyroid intake or radioiodine.

TRAFFIC CONTROL POINTS (TCP) Any of a number of key route intersections within and around the Plume Exposure Pathway EPZ designed to facilitate the flow of traffic in a desired direction while discouraging the flow of traffic in other directions. Traffic Control Points may sometimes double as Access Control Points to restrict entry into the Plume Exposure Pathway EPZ.

TRANSPORTATION RESOURCES Modes of transportation for evacuation of nursing home residents, school staff and students, and other population groups; generally includes ambulances, buses and trucks.

TURBINE The device which converts heat energy into electrical energy.

UNMET NEEDS Capabilities and/or resources required to support emergency operations that are neither available nor provided for at the respective levels of emergency response.

UNUSUAL EVENT (UE) An emergency classification which indicates events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs. It is the least severe situation of the four emergency classifications.

UNUSUAL EVENT (TERMINATED) A condition that warrants an Unusual Event declaration, but was immediately rectified, such that the condition no longer existed by the time of the declaration. The event or condition did not affect personnel on-site or the public off-site, or result in radioactive releases requiring off-site monitoring.

VERIFICATION The process of confirming a notification action taken, performed as part of the alerting process by state or local officials.

VERMONT YANKEE (VY) Vermont Yankee Nuclear Power Nuclear Power Corporation, a nuclear generating station located in Vernon, Vermont.

WTSA The primary EAS radio station for the Vermont Yankee EPZ, located in Brattleboro, Vermont.

YANKEE (ROWE) PLANT Permanently shutdown nuclear power plant located in Rowe, Massachusetts.

ACRONYMS

ACP	Access Control Point
AHS	Agency of Human Services
ALARA	As Low As Reasonably Achievable
ANR	Agency of Natural Resources
AOT	Agency of Transportation
ARC	American Red Cross
CAP	Civil Air Patrol
CD	Civil Defense
CPCS-1	Common Program Control Station - 1
CPM	Counts Per Minute
DHS	Division of Human Services
DLR	Dosimeter of Legal Record
DOA	(Vermont) Department of Agriculture
DOC	(U.S.) Department of Commerce
DOD	(U.S.) Department of Defense
DOE	(U.S.) Department of Energy
DOT	(Vermont) Department of Transportation
DRD	Direct Reading Dosimeter
DRL	Derived Response Level
EAS	Emergency Alert System
ECL	Emergency Classification Levels
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPA	Environmental Protection Agency
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
EWMDS	Emergency Worker Monitoring and Decontamination Station (of the U.S. Department of Commerce)
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FRERP	Federal Radiological Emergency Response Plan
FRMAC	Federal Radiological Monitoring and Assessment Center
FRMAP	Federal Radiological Monitoring and Assessment Plan
GE	General Emergency
HHS	(U.S. Department of) Health and Human Services
HLS	Homeland Security
HOC	Health Operations Center
IEP	Ingestion Exposure Pathway
IFO	Incident Field Office
IPZ	Ingestion Pathway Zone
JIC	Joint Information Center
KI	Potassium Iodide
mR	Milliroentgen
NAS	Nuclear Alert System
NAWAS	National Warning System

NCS	National Communication System
NIAT	Nuclear Incident Advisory Team
NOAA	National Oceanic and Atmospheric Administration
NPS	Nuclear Power Station
NRC	Nuclear Regulatory Commission
NWS	National Weather Service
PAG	Protective Action Guides
PCU	Patient Coordination Unit
PIO	Public Information Officer
R	Roentgen
RACES	Radio Amateur Civil Emergency Service
RAD	A measurement of radiation energy deposited in material
REM	Roentgen Equivalent Man
RERP	Radiological Emergency Response Plan
RM&D	Radiological Monitoring and Decontamination
SAE	Site Area Emergency
STSA	State Transportation Staging Area
TCP	Traffic Control Point
TDD	Telecommunications Device for the Deaf
TLD	Thermoluminescent Dosimeter
TSA	Transportation Staging Area
UE	Unusual Event
USAF	U.S. Air Force
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
VEM	Vermont Emergency Management
VHD	Vermont Health Department
VHDL	Vermont Health Department Laboratory
VTNG	Vermont National Guard
VY	Vermont Yankee
VYNPS	Vermont Yankee Nuclear Power Station
YAEC	Yankee Atomic Electric Company

INCIDENT ANNEX 9A
VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

Attachment 1

Plan Maintenance
Document Control
Assignment of Responsibility
Emergency Response Planning

PLAN MAINTENANCE

Vermont Division of Emergency Management and Homeland Security, Department of Public Safety, is responsible for the maintenance of the Vermont Radiological Emergency Response Plan (VRERP). An Emergency Response Plan Section has been designated to develop and update the plans and procedures, develop and maintain preparedness, and coordinate with appropriate state, local, and federal organizations. The plan, memorandum of understanding, and letters of agreement shall be reviewed each year to ensure that the information is current and accurate. The review will be conducted by cognizant staff from Vermont Division of Emergency Management and Homeland Security, the Vermont Department of Health and other state agencies and organizations as necessary. Changes, corrections, or additions may be requested by state or local government agencies or be required based on new federal guidance or the results of drills and exercises. Major alterations to the structure of this plan will require coordination with and the cooperation of the agencies and organizations which may be affected. Proposed changes will be reviewed and incorporated, as appropriate. The month and year of the revision will be shown on the lower right-hand corner of each page. All changes to the plan will be documented and distributed to controlled copy holders.

PLAN REVISIONS

Requests for plan revisions and notifications of changes in personnel or agency telephone numbers shall be forwarded to the
Director of Division of Emergency Management
And Homeland Security
Department of Public Safety
103 South Main Street, Waterbury, Vermont 05671-2101.

Changes in essential response personnel and notification telephone numbers should be reported **AT LEAST 10 DAYS PRIOR TO THE EFFECTIVE DATE** of such change to permit prompt revision to the plan, procedures, and notification lists, as appropriate.

Each State agency having a response role is required to have:

1. Procedures in support of the VRERP. These procedures include methods of operations, operating instructions and logistical data.

2. Designated essential agency personnel and specify internal notification procedures.

3. Internal personnel directories with 24-hour telephone and cell telephone numbers, and expected response times. These personnel directories and emergency telephone numbers will be updated quarterly and sent to Emergency Management.

4. Locations and delivery methods for all equipment and material inventories identified for use in a radiological emergency.

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NOTICE OF REVISION AND DOCUMENT CONTROL

Document control is essential for two fundamental reasons: (a) there must be assurance that changes are promptly and properly posted and (b) there must be an accurate and up-to-date file of holders of plan copies to assure proper distribution of plan changes or amendments.

Vermont Division of Emergency Management and Homeland Security shall maintain accountability of the plans and revisions through the use of the Document Control Receipt Form (Revision 4, Dated 03-01-10).

Two (2) copies of the Receipt Form will be forwarded with the initial plan or subsequent changes.

One (1) copy will be posted in the front of the recipient's plan.

The other copy will be signed, dated, and returned by the recipient to:

Vermont Division of Emergency Management
And Homeland Security
Department of Public Safety
103 South Main Street, Waterbury, Vermont 05671-2101.

Vermont Division of Emergency Management and Homeland Security maintains both paper receipt files and a computerized database on who has been sent documents and who has signed and returned the receipts. For more information, call 802-241-5495.

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VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

Dear Plan User:

The Vermont Radiological Emergency Response Plan (VRERP) has been revised. The following is requested:

1. Remove and discard the entire plan and replace with the new July 2008, Revision 7 version.

2. Sign and return one (1) copy of the DOCUMENT CONTROL RECEIPT FORM to the address noted below.

3. Post one (1) copy of the DOCUMENT CONTROL RECEIPT FORM in the front of your book.

4. Ensure that users of the document are aware of the changes.

5. Your plan copy number may have changed. If so, please change the number that appears on the outside of the State Plan binder, accordingly.

If the Plan has been lost - **PLEASE** note on the return **RECEIPT**.

Please direct any questions concerning this document to RERP Planner, Vermont Division of Emergency Management and Homeland Security, (802) 244-8721.

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VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

STATE OF VERMONT
DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY
DEPARTMENT OF PUBLIC SAFETY

DOCUMENT CONTROL RECEIPT FORM

I hereby acknowledge receipt of the **Vermont Radiological Emergency Response Plan**

Signed: _____

Title: _____

Agency/Organization: _____

Date: _____

Date of Issue: March 2010

Copy Number: _____

Remarks:

Please return to: Vermont Division of Emergency Management
and Homeland Security
ATTENTION: RERP PLANNER
103 South Main Street
Waterbury, VT 05671-2101

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ASSIGNMENT OF RESPONSIBILITY

FUNCTION	RESPONSIBLE AGENCY
1. Command and Control	X Vermont Division of Emergency Management and Homeland Security
2. Alerting and Notification	• Vermont Emergency Management • Vermont State Police • Agency of Transportation
3. Communications	• Department of Public Safety, Criminal Justice Services • Vermont Division of Emergency Management and Homeland Security • Vermont State Police
4. Public Information	• Governor's Office • Department of Public Safety
5. Accident Assessment	• Department of Health • Department of Public Service • Agency of Natural Resources • Department of Environmental Conservation • Agency of Agriculture, Food, and Markets • Vermont Emergency Management
6. Public Health and Sanitation	• Department of Health • Agency of Human Services
7. Social Services	• Agency of Human Services • American Red Cross
8. Fire and Rescue	• Local Fire Departments • Vermont State Police • Department of Health, Emergency Medical Services
9. Traffic and Access Control	• Vermont State Police • Agency of Transportation • Vermont National Guard • Windham County Sheriff • Local Police (EPZ Towns) X Local Highway/Public Works Dept (EPZ Towns) X Local Fire Dept (EPZ Towns)

FUNCTION	RESPONSIBLE AGENCY
10. Emergency Medical Services	• Health Department, Emergency Medical Services • Agency of Human Services • District 13 Ambulance • Local EMS - Rescue, Inc. - Lefevre Ambulance
11. Law Enforcement	• Vermont State Police • Department of Environmental Conservation • Vermont National Guard • Windham County Sheriff • Local Police - Brattleboro - Vernon
12. Transportation	• Agency of Transportation • Vermont State Police X Vermont National Guard X EP2 Towns
13. Protective Response	• Governor's Office • Department of Health • Department of Public Service • Vermont Division of Emergency Management and Homeland Security • Vermont State Police • Agency of Natural Resources • Department of Environmental Conservation • Agency of Agriculture, Food, and Markets • EP2 Towns
14. Radiological Exposure Control	• Department of Health

EMERGENCY RESPONSE PLANNING

The Commissioner of Public Safety has designated Vermont Emergency Management as the state/local planning authority for the development of the Vermont Radiological Emergency Response Plan.

The Director of Vermont Division of Emergency Management and Homeland Security is responsible for all emergency preparedness in Vermont. Planning and interface functions have also been assigned to the Director of Vermont Division of Emergency Management and Homeland Security. Assistance is provided by the Vermont Division of Emergency Management and Homeland Security staff and personnel from various Vermont state government organizations.

Radiological Emergency Response Planning is authorized under Title 20, Vermont Statutes Annotated, Section 38.

Local (town) planning authority and personnel designations are local responsibilities. The State of Vermont has accepted the responsibility for providing assistance to any community which could be affected by a radiological emergency to ensure the development of adequate local plans which interface with the State plan. Some organizations require operational plans which utilize both local and state resources to accomplish response actions. State planning assistance is also made available to these organizations.

State agency planning authority and personnel designations are made at the discretion of the agency heads. All participating State organizations will develop operational procedures in support of the VRERP. Vermont Division of Emergency Management and Homeland Security is responsible for ensuring that all plans and procedures are compatible with one another and that there is inter-operability between them all.

The acceptance of each town, institutional and State organization plan by authorized representatives and designated state officials will constitute an operational agreement between the parties, eliminating the need for separate letters of agreement for each participant.

INCIDENT ANNEX 9A
VERMONT RADIOLOGICAL EMERGENCY RESPONSE PLAN

Attachment 2

Public Information List of

News Releases and Emergency Alert Messages

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DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL
VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

EMERGENCY ALERT SYSTEM MESSAGE

EAS:		**EMERGENCY ALERT SYSTEM MESSAGE**
Time:		
Date:	8/9/2013	

No: EAS _____ *Decision Time:* _____ *NOAA & Sirens:* _____
Airtime: _____

The Emergency Alert System is being activated by Vermont Emergency Management to advise that a Site Area Emergency has been declared at the Vermont Yankee Nuclear Power Plant in Vernon, Vermont.

There **has not** been a release of radioactive materials at the plant related to this event.

Governor Peter Shumlin has declared a state of Emergency and orders the following precautionary actions.

Emergency Management officials order the following protective actions:

X Persons currently in Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon are advised to EVACUATE.

X Schoolchildren in Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon are being transferred to the State Reception Center at Bellows Falls Union High School. Parents of those students are advised to pick up their children at the reception center.

X A Reception Center at Bellows Falls Union High School in Westminster, Vermont is in operation.

X Persons currently in Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon are advised to SHELTER IN PLACE.

X Farmers in the area are advised to shelter livestock and provide them with stored feed and water.

X Boaters, non-residents, and visitors to State Parks are advised to leave.

X Individuals in area nursing homes, hospitals, and childcare centers are being transferred to pre-arranged sites outside of the immediate area.

For additional information and protective actions tune into Emergency Alert Radio Stations WTSA 96.7 FM or 1450 AM; WKVT-92.7 FM or 1490 AM; or WVAY-100.7 FM. For additional information refer to your annual emergency public information calendar.

Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530.

Stay tuned to this or any Emergency Alert System station for official updates and information.

REPEAT ENTIRE EAS MESSAGE EVERY 15 MINUTES

APPROVED: _____ Date_____Time:_____
Incident Director

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL
VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

Alert Declared at Vermont Yankee Nuclear Power Plant

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Vermont Division of Emergency Management and Homeland Security Director Michael O'Neil has notified state emergency management personnel to be on standby. O'Neil said that present conditions at the plant do not require any actions by the public, but that emergency response officials need to be alert to any changes in the situation at the plant.

Officials in the Vermont communities of Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon have been notified of this event by emergency management. State officials are assessing the situation. Visitors and residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon are advised to stay tuned to local Emergency Alert Stations for the latest information and any developments.

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	

	WHMQ		1240

Residents should refer to their annual Vermont Yankee Emergency Public Information calendar for additional information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL

VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

GOVERNOR ACTIVATES EMERGENCY MANAGEMENT PERSONNEL FOR VERMONT YANKEE INCIDENT

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Governor Peter Shumlin has activated state and municipal emergency management personnel to respond to an emergency situation at the Vermont Yankee Nuclear Power Station. The Governor cautioned that the present conditions at the plant do not require any protective actions by the general public at this time but emergency response officials need to be alert to any changes in the status of the emergency.

The Vermont Emergency Operations Center in Waterbury and the Municipal Emergency Operations Centers of **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon** have been activated. This is to ensure that emergency personnel are available to respond if the situation becomes more serious.

Officials of the Vermont Departments of Health and Public Service are assessing data from Vermont Yankee. They will make recommendations to the governor regarding what protective actions the public should take.

Posters, fliers, and brochures containing emergency information have been provided at park offices, hotels, motels, and businesses in the area. This information could be useful in understanding future messages.

A Joint Information Center is located at Vermont Yankee Corporate Headquarters on Old Ferry Road in Brattleboro. Representatives from Vermont, New Hampshire, Massachusetts, the Nuclear Regulatory Commission, and the Federal Emergency Management Agency will issue press briefings from that location.

Residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211.

Stay tuned to a local Emergency Alert System station for official updates and information.

-MORE-

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL

VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

SITE AREA DECLARED
AT VERMONT YANKEE NUCLEAR POWER PLANT

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Entergy Nuclear has notified the Vermont Department of Public Safety that there has been an incident at the Vermont Yankee Nuclear Power Plant in Vernon, Vermont. This incident has been classified as a **Site Area Emergency.**

There **has / not** been a release of radioactive materials at the plant.

Residents and visitors of **Brattleboro, Guilford, Vernon, Dummerston, Halifax, and Marlboro** are advised to stay tuned to the Emergency Alert System broadcasts for further instructions. This advisory will be repeated and updated frequently as more details on the incident become available. Further instructions will continue to be provided over this station.

Vermont officials are assessing the situation and are in constant communication with the staff at the Vermont Yankee nuclear power plant. Federal and State personnel are monitoring the incident. State and local emergency workers have been activated to implement necessary emergency response actions.

Governor Peter Shumlin has declared a State of Emergency.

As a precautionary measure, Governor Shumlin and state officials are **ordering** the following actions be taken:

X Individuals currently in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon** are advised to EVACUATE.

X Individuals currently in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon** are advised to SHELTER IN PLACE.

X Schoolchildren in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon** are being transferred to the State Reception Center at Bellows Falls Union High School.

X Farmers in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston** are advised to shelter livestock and provide stored feed and water.

X Patients in nursing homes and the Brattleboro Memorial Hospital that can be safely moved will be evacuated to medical facilities outside of the five-town area.

****** SHELTER IN PLACE**:

Residents and visitors in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston,** are advised to SHELTER IN PLACE. To shelter in place you should remain indoors in order to provide adequate protection from any radiation being released from the plant. To obtain increased protection from potential exposure to radiation, you should take the following protective actions:

1. Take shelter indoors. Shelter in your home, at your workplace or at any other location where you may stay for several hours.

2. Make sure all doors and windows are tightly closed.

3. If in your car, close all windows and vents and turn off air conditioning and heating systems as you proceed to your destination.

4. Turn off all fans, heating, air conditioning systems, or any device that brings in outside air.

5. Take a radio with you and move to the basement if you have one. If you do not have a basement, move to the room with the fewest windows and doors.

6. Keep all members of your household indoors. Stay calm and tune to your local Emergency Broadcast System radio station.

7. Do not call local officials, Police, or Fire unless absolutely necessary.

8. If you must go outdoors, place a handkerchief, folded towel, or a protective mask over your nose and mouth to filter the air you breathe. Limit the time you are outside.

9. Food and milk in your home are safe for consumption. Public officials will advise you on the safety of water supplies over EBS radio. Outside vegetable gardens may not be safe in the event of a chemical or radiological accident. Do not eat from outside gardens until further notice.

10. Remain indoors until advised by local or state officials that it is safe to go outside.

Hospitals, day care centers, schools and other institutions in these towns are taking similar actions. Public officials have instructions for protecting children and all other persons in their care.

**** EVACUATION**:

All persons in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon** are advised to EVACUATE.

To evacuate you should:

1. Gather all members of your household together. If you have children attending school in a town being evacuated, do not attempt to pick them up at school. They are being transferred to the State Reception Center at the Bellows Falls Union High School. Children transferred there are being well cared for by school officials, the American Red Cross and other professionals until parents arrive. To avoid confusion, parents are urged not to pick up their children at schools or day care centers within the affected area. Rather, parents are asked to pick up children at Bellows Falls Union High School.

   If you or someone in your care is bedridden, handicapped, in need of special evacuation help, or other transportation assistance and have not made previous arrangements with municipal emergency management officials, please call your municipal Emergency Operations Center. If there is no answer at your municipal Emergency Operations Center, call the Vermont Division of Emergency Management and Homeland Security at 1-800-347-0488. If you have already registered, there is no need to call; help is on its way.

   All persons are urged to be good neighbors and to help one-another by sharing rides or offering assistance.

   If you have any neighbors or co-workers with hearing or language problems, please inform them of this message.

   If you are unfamiliar with this area or if you are not sure that you can comply with these instructions, seek help from emergency services personnel.

2. Pack only essential items. Bring enough seasonal clothing for a three-day stay. Bring prescription medicines, personal items, and infant supplies.

3. Turn off lights and appliances and secure your home or office as though you were leaving on vacation.

4. Pet owners are encouraged to evacuate with their pets. Pets will not be allowed inside the State Reception Center or emergency shelters; however, the Animal Care and Rescue Unit at the reception center will help you shelter your animal. If you decide to leave your

pet at home, provide them with shelter and a three days supply of food and water.

5. While in your car, close all windows and vents and turn off air conditioning and heating systems as you proceed to your destination.

6. If you must go outdoors, place a handkerchief, folded towel, or a protective mask over your nose and mouth to filter the air you breathe. Limit the time you are outside.

7. *DON'T RUSH!* Proceed in a calm, orderly fashion along designated evacuation routes to the Reception Center. There is no immediate danger!

8. Do not attempt to return to your community until you are advised to do so.

If you are evacuating to **the Bellows Falls Union High School** in Westminster, VT, the major evacuation routes are listed as follows:

From Brattleboro follow local roads or street to I-91, Exits 2 or 3. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. Brattleboro evacuees may also follow U.S. Route 5 directly to Bellows Falls Union High School.

From Dummerston follow U.S. Route 5 North to Bellows Falls Union High School.

From Guilford follow local roads North or Northeast to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Guilford evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Halifax follow town roads North, Northeast or East to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Halifax evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Marlboro follow local roads to Route 9. Proceed East to I-91, Exit 2. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Vernon follow town roads to Route 142 or U. S. Route 5 North to Exit 1 (I-91). From either Route, proceed North on I-91 to Exit 5 and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From all VT towns, if evacuating to Greenfield Community College in Greenfield, MA:

follow Route 142 or U.S. Route 5 south to I-91 south. Take I-91 to exit 26, to Route 2 west. Take first right (on Colrain Road) to the Reception Center at Greenfield Community College in Greenfield, Massachusetts.

From all VT towns, if evacuating to Keene State College in Keene, NH:
follow U.S. Route 5 or I-91 to join Route 9 (North of Brattleboro). Proceed east on route 9 into Keene, NH and to Keene State College.

Farmers with livestock in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston** are advised to shelter livestock and provide stored feed and water. The Vermont Department of Agriculture recommends the following actions for owners of any type of livestock:

1. Move milk-producing animals inside a barn or other means of shelter.

2. Reduce sources of outside air into their buildings.

3. Move outside feed supplies indoors or cover them, if possible. Provide animals with water from covered, uncontaminated sources. Water from drilled or covered wells is suitable for use.

4. Call (802) 244-8721 (collect) for more information or 1-800-736-5530.

Visitors to Fort Dummer State Park in Brattleboro and Sweet Pond State Park in Guilford are advised to leave the area. Visitors at these parks and all other outdoor recreation areas in Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston are advised to leave these areas. Boaters on the Connecticut River and all other recreational waterways in Vernon, Guilford, Brattleboro, Halifax, and Dummerston are advised to leave these waters.

Transients and non-residents in Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston are advised to leave the area taking routes to the North, South, East, or West away from the town of Vernon, VT.

A Reception Center has been opened at the Bellows Falls Union High School in Westminster, VT.

*****ENDING**

Please refrain from all unnecessary use of communications systems. Your use of telephones may tie up circuits needed for urgent emergency calls.

For additional information, refer to your annual emergency public information calendar. This information could be useful in understanding future messages. If you cannot find this information and need assistance, call 1-800-736-5530. For official updates stay tuned to one of the Emergency Alert System stations:

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

If you know of any neighbors or co-workers with language problems, please be sure they are aware of this information and that they understand what they should do.

To address questions, a toll-free number has been established for the public at the VERMONT DEPARTMENT OF PUBLIC SAFETY: 1-800-736-5530

Members of the media with questions on the Vermont Division of Emergency Management and Homeland Security response can call (802) 244-5368. Members of the media are urged to come to the Media Center at the Vermont Yankee's Corporate Offices on Old Ferry Road in Brattleboro for timely and accurate updates.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL

VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

VERMONT YANKEE NUCLEAR POWER PLANT SHUT DOWN

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time. There Has/Has not been a release of radioactive material at the plant above federally allowed levels.

The Vermont Emergency Operations Center in Waterbury and the Municipal Emergency Operations Centers of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon have been activated. This is to ensure that emergency personnel are available to respond if the situation becomes more serious.

Vermont Radiological health personnel and the State Nuclear Engineer are jointly assessing data received from Vermont Yankee. This state team will make the necessary recommendations to the Governor concerning the protection of the public.

Vermont Division of Emergency Management and Homeland Security Director Michael O'Neil advised residents of Windham County to stay tuned to local Emergency Alert Stations for the latest information and any forthcoming instructions.

All Vermont emergency response activities are being coordinated through the Vermont Emergency Operations Center in Waterbury.

A Joint Information Center is located at Entergy Brattleboro Offices building on Old Ferry Road in Brattleboro. Representatives from Vermont, New Hampshire, Massachusetts, the Nuclear Regulatory Commission, and the Federal Emergency Management Agency will issue press briefings from that location.

For additional information residents should refer to their annual emergency public information calendar. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530 or 211.

Vermont residents should stay tuned to a local emergency Alert System station for official updates and information.

-MORE-

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL

VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

VERNON SCHOOL CHILDREN EVACUATED DUE TO SECURITY ISSUE AT VERMONT YANKEE

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security.

Officials at Vermont Yankee Nuclear Power Station have declared an Alert at the facility. According to Vermont Yankee plant officials, the plant is reducing power. There has been no release of radiation to the environment as a result of this event.

No protective actions are required by residents at this time. However, school children in Vernon are being evacuated to the Brattleboro High School auditorium due to an additional security issue at the plant.

The Nuclear Regulatory Commission and officials from Vermont, New Hampshire, and Massachusetts have been activated. Plant personnel are working to return the plant to normal conditions.

The Vermont State Emergency Operations Center has been opened and is staffed by state agencies.

A Joint News Center is operating at the Vermont Yankee Corporate Headquarters on Old Ferry Road in Brattleboro. Representatives from the states, the Nuclear Regulatory Commission and the Federal Emergency Management Agency will be available at that location to provide information. Additional details will be released as they become available.

Residents in the Windham County area have been advised to stay tuned to local emergency alert stations for the latest information.

Emergency Alert Stations		**FM**	**AM**
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220

	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

For additional information, please refer to your public information calendar. Posters, fliers, and brochures containing emergency information have been provided at park offices, hotels, motels and businesses in the area

Individuals with questions should call the Public Inquiry Hotline at the Vermont Department of Public Safety at 1-800-347-0488 or 211.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL
VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

SITE AREA EMERGENCY DECLARED AT VERMONT YANKEE NUCLEAR POWER PLANT

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Entergy Nuclear has notified the Vermont Department of Public Safety that there has been an incident at the Vermont Yankee Nuclear Power Plant in Vernon, Vermont. This incident has been classified as a **Site Area Emergency.**

There **has / not** been a release of radioactive materials at the plant.

Residents of Vermont communities should stay tuned to this station updates. If you are hearing this message in New Hampshire or Massachusetts, you are advised to turn to a local emergency alert station for local guidance and information.

Residents and visitors of **Brattleboro, Guilford, Vernon, Dummerston, Halifax, and Marlboro** are advised to stay tuned to the Emergency Alert System broadcasts for further instructions. This advisory will be repeated and updated frequently as more details on the incident become available. Further instructions will continue to be provided over this station.

Vermont officials are assessing the situation and are in constant communication with the staff at the Vermont Yankee nuclear power plant. Federal and State personnel are monitoring the incident. State and local emergency workers have been activated to implement necessary emergency response actions.

Governor Peter Shumlin has declared a State of Emergency to insure that the full resources of the State will be at the disposal of Vermont Division of Emergency Management and Homeland Security.

As a precautionary measure, Governor Shumlin and state officials/state officials are **ordering** the following actions be taken:

X Individuals in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon** are ordered to EVACUATE.

X Residents of **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon** are ordered to SHELTER IN PLACE.

X Boaters, non-residents, and visitors to State Parks are ordered to leave.

X Schoolchildren in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon** are being transferred to the State Reception Center at Bellows Falls Union High School. Parents are advised to pick up children at the reception center, not at school.

X Farmers in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston** are advised to shelter livestock and provide stored feed and water.

X Patients in nursing homes and the Brattleboro Memorial Hospital that can be safely moved will be evacuated to medical facilities outside of the five-town area.

****** SHELTER IN PLACE**:

Residents in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston,** are ordered to SHELTER IN PLACE.

To Shelter in place you should: Remain indoors in order to provide adequate protection from any radiation being released from the plant. To obtain increased protection from potential exposure to radiation, you should take the following protective actions:

1. Take shelter indoors. Shelter in your home, at your workplace or at any other location where you may stay for several hours.

2. Make sure all doors and windows are tightly closed.

3. If in your car, close all windows and vents and turn off air conditioning and heating systems as you proceed to your destination.

4. Turn off all fans, heating, air conditioning systems, or any device that brings in outside air.

5. Take a radio with you and move to the basement if you have one. If you do not have a basement, move to the room with the fewest windows and doors.

6. Keep all members of your household indoors. Stay calm and tune to your local Emergency Broadcast System radio station.

7. Do not call local officials, Police, or Fire unless absolutely necessary.

8. If you must go outdoors, place a handkerchief, folded towel, or a protective mask over

your nose and mouth to filter the air you breathe. Limit the time you are outside.

9. Food and milk in your home are safe for consumption. Public officials will advise you on the safety of water supplies over EBS radio. Outside vegetable gardens may not be safe in the event of a chemical or radiological accident. Do not eat from outside gardens until further notice.

10. Remain indoors until advised by local or state officials that it is safe to go outside.

Hospitals, day care centers, schools and other institutions in these towns are taking similar actions. Public officials have instructions for protecting children and all other persons in their care.

**** EVACUATION**:

All persons in **Brattleboro, Dummerston, Guilford, Halifax, Marlboro and Vernon** are ordered to EVACUATE.

To evacuate you should:

1. Gather all members of your household together. If you have children attending school in a town being evacuated, do not attempt to pick them up at school. They are being transferred to the State Reception Center at the Bellows Falls Union High School. Children transferred there are being well cared for by school officials, the American Red Cross and other professionals until parents arrive. To avoid confusion, parents are urged not to pick up their children at schools or day care centers within the affected area. Rather, parents are asked to pick up children at Bellows Falls Union High School. If ordered to shelter in place, do not pick up your children until instructed to do so.

   If you or someone in your care is bedridden, handicapped, in need of special evacuation help, or other transportation assistance and have not made previous arrangements with municipal emergency management officials, please call your municipal Emergency Operations Center. If there is no answer at your municipal Emergency Operations Center, call Vermont Division of Emergency Management and Homeland Security at 1-800-347-0488. If you have already registered, there is no need to call; help is on its way.

   All persons are urged to be good neighbors and to help one-another by sharing rides or offering assistance.

   If you have any neighbors or co-workers with hearing or language problems, please inform them of this message.

   If you are unfamiliar with this area or if you are not sure that you can comply with these instructions, seek help from emergency services personnel.

2. Pack only essential items. Bring enough seasonal clothing for a three-day stay. Bring

prescription medicines, personal items, and infant supplies.

3. Turn off lights and appliances and secure your home or office as though you were leaving on vacation.

4. Pet owners are encouraged to evacuate with their pets. Pets will not be allowed inside the State Reception Center or emergency shelters; however, the Animal Care and Rescue Unit at the reception center will help you shelter your animal. If you decide to leave your pet at home, provide them with shelter and a three days supply of food and water.

5. While in your car, close all windows and vents and turn off air conditioning and heating systems as you proceed to your destination.

6. If you must go outdoors, place a handkerchief, folded towel, or a protective mask over your nose and mouth to filter the air you breathe. Limit the time you are outside.

7. *DON'T RUSH!* Proceed in a calm, orderly fashion along designated evacuation routes to the Reception Center. There is no immediate danger!

8. Do not attempt to return to your community until you are advised to do so.

If you are evacuating to **the Bellows Falls Union High School** in Westminster, VT, the major evacuation routes are listed as follows:

From Brattleboro follow local roads or street to I-91, Exits 2 or 3. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. Brattleboro evacuees may also follow U.S. Route 5 directly to Bellows Falls Union High School.

From Dummerston follow U.S. Route 5 North to Bellows Falls Union High School.

From Guilford follow local roads North or Northeast to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Guilford evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Halifax follow town roads North, Northeast or East to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Halifax evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Marlboro follow local roads to Route 9. Proceed East to I-91, Exit 2. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Vernon follow town roads to Route 142 or U. S. Route 5 North to Exit 1 (I-91). From either Route, proceed North on I-91 to Exit 5 and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From all VT towns, if evacuating to Greenfield Community College in Greenfield, MA: follow Route 142 or U.S. Route 5 south to I-91 south. Take I-91 to exit 26, to Route 2 west. Take first right (on Colrain Road) to the Reception Center at Greenfield Community College in Greenfield, Massachusetts.

From all VT towns, if evacuating to Keene State College in Keene, NH:
Follow U.S. Route 5 or I-91 to join Route 9 (North of Brattleboro). Proceed via Route 9 east toward Keene for approximately 10 miles. Turn left onto Main Street; Keen State College's Spaulding Gymnasium is on the left.

Farmers with livestock in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston** are advised to shelter livestock and provide stored feed and water. The Vermont Agency of Agriculture recommends the following actions for owners of any type of livestock:

1. Move milk-producing animals inside a barn or other means of shelter.

2. Reduce sources of outside air into their buildings.

3. Move outside feed supplies indoors or cover them, if possible. Provide animals with water from covered, uncontaminated sources. Water from drilled or covered wells is suitable for use.

4. Call (802) 244-8721 (collect) for more information.

Visitors to Fort Dummer State Park in Brattleboro and Sweet Pond State Park in Guilford are ordered to leave the area. Visitors at these parks and all other outdoor recreation areas in Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston are ordered to leave these areas. Boaters on the Connecticut River and all other recreational waterways in Vernon, Guilford, Brattleboro, Halifax, and Dummerston are ordered to leave these waters.

Transients and non-residents in Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston are ordered to leave the area taking routes to the North, South, East, or West away from the town of Vernon, VT.

A Reception Center has been opened at the Bellows Falls Union High School in Westminster, VT.

*****ENDING**

Please refrain from all unnecessary use of communications systems. Your use of telephones may tie up circuits needed for urgent emergency calls.

For additional information, refer to your annual emergency public information calendar. This information could be useful in understanding future messages. If you cannot find this information and need assistance, call 1-800-736-5530 or 211. For official updates stay tuned to one of the Emergency Alert System stations:

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

If you know of any neighbors or co-workers with language problems, please be sure they are aware of this information and that they understand what they should do.

To address questions, a toll-free number has been established for the public at the VERMONT DEPARTMENT OF PUBLIC SAFETY: 1-800-736-5530

Members of the media with questions on the Vermont Division of Emergency Management and Homeland Security response can call (800) 347-0488. Members of the media are urged to come to the Media Center at the Vermont Yankee's Corporate Offices on Old Ferry Road in Brattleboro for timely and accurate updates.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

DRILL DRILL DRILL DRILL DRILL DRILL DRILL DRILL
VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

EVACUATIONS ORDERED FOR EMERGENCY PLANNING ZONE

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Due to the General Emergency at Vermont Yankee Nuclear Power Station, Emergency Management Officials have ordered the evacuation of the populations of the towns of **Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon**, Vermont. Town emergency response personnel will assist their respective communities. State and local police are establishing traffic assistance points to expedite the flow of evacuees.

Governor Peter Shumlin has declared a State of Emergency making all state resources available to assist with the emergency. The Vermont Reception Center has been opened to receive evacuees at the Bellows Falls Union High School in Westminster, Vermont. Residents of the Emergency Planning Zone should follow the recommended evacuation routes. Persons located south of the Vermont Yankee Nuclear Power Plant in Vernon, VT should use the Massachusetts Relocation Center at Greenfield Community College.

The Governor said this action is being initiated on the advice of the Vermont Department of Health and Vermont Yankee officials. There **has not** been a release of radioactive material from the plant.

Residents are urged to stay tuned to local broadcast stations for further information.

Emergency Alert Stations		**FM**	**AM**
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	

	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

Residents should refer to their annual Vermont Yankee Emergency Public Information calendar for additional information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530 or 211.

To evacuate you should:

1. Gather all members of your household together. If you have children attending school in a town being evacuated, do not attempt to pick them up at school. They are being transferred to the State Reception Center at the Bellows Falls Union High School. Children transferred there are being well cared for by school officials, the American Red Cross and other professionals until parents arrive. To avoid confusion, parents are urged not to pick up their children at schools or day care centers within the affected area. Rather, parents are asked to pick up children at Bellows Falls Union High School. If ordered to shelter in place, do not pick up your children until instructed to do so.

   If you or someone in your care is bedridden, handicapped, in need of special evacuation help, or other transportation assistance and have not made previous arrangements with municipal emergency management officials, please call your municipal Emergency Operations Center. If there is no answer at your municipal Emergency Operations Center, call Vermont Division of Emergency Management and Homeland Security at 1-800-347-0488. If you have already registered, there is no need to call; help is on its way.

   All persons are urged to be good neighbors and to help one-another by sharing rides or offering assistance.

   If you have any neighbors or co-workers with hearing or language problems, please inform them of this message.

   If you are unfamiliar with this area or if you are not sure that you can comply with these instructions, seek help from emergency services personnel.

2. Pack only essential items. Bring enough seasonal clothing for a three-day stay. Bring prescription medicines, personal items, and infant supplies.

3. Turn off lights and appliances and secure your home or office as though you were leaving on vacation.

4. Pet owners are encouraged to evacuate with their pets. Pets will not be allowed inside the State Reception Center or emergency shelters; however, the Animal Care and Rescue Unit at the reception center will help you shelter your animal. If you decide to leave your pet at home, provide them with shelter and a three days supply of food and water.

5. While in your car, close all windows and vents and turn off air conditioning and heating systems as you proceed to your destination.

6. If you must go outdoors, place a handkerchief, folded towel, or a protective mask over your nose and mouth to filter the air you breathe. Limit the time you are outside.

7. *DON'T RUSH!* Proceed in a calm, orderly fashion along designated evacuation routes to the Reception Center. There is no immediate danger!

8. Do not attempt to return to your community until you are advised to do so.

If you are evacuating to **the Bellows Falls Union High School** in Westminster, VT, the major evacuation routes are as follows:

From Brattleboro follow local roads or street to I-91, Exits 2 or 3. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. Brattleboro evacuees may also follow U.S. Route 5 directly to Bellows Falls Union High School.

From Dummerston follow U.S. Route 5 North to Bellows Falls Union High School.

From Guilford follow local roads North or Northeast to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Guilford evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Halifax follow town roads North, Northeast or East to Route 9 or U.S. Route 5. Route 9 evacuees should proceed East to I-91, Exit 2. U.S. Route 5 evacuees should proceed North to I-91, Exit 1. All Halifax evacuees should then proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Marlboro follow local roads to Route 9. Proceed East to I-91, Exit 2. Proceed North on I-91 to Exit 5, and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From Vernon follow town roads to Route 142 or U. S. Route 5 North to Exit 1 (I-91). From either Route, proceed North on I-91 to Exit 5 and take U.S. Route 5 North to Bellows Falls Union High School. (U. S. Route 5 may be followed in lieu of I-91 North.)

From all VT towns, if evacuating to Greenfield Community College in Greenfield, MA: follow Route 142 or U.S. Route 5 south to I-91 south. Take I-91 to exit 26, to Route 2 west. Take first right (on Colrain Road) to the Reception Center at Greenfield Community College in Greenfield, Massachusetts.

From all VT towns, if evacuating to Keene State College in Keene, NH:
Follow U.S. Route 5 or I-91 to join Route 9 (North of Brattleboro). Proceed via Route 9 east toward Keene for approximately 10 miles. Turn left onto Main Street; Keen State College's Spaulding Gymnasium is on the left.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

Media Note: Please refer to the following documents for further information:

1. Evacuation Routes For Areas Surrounding The Vermont Yankee Nuclear Power Plant
2. Safety Recommendations for Individuals Evacuating The Area Surrounding The Vermont Yankee Nuclear Power Plant
3. Recommendations For Owners of Livestock In The Area Surrounding The Vermont Yankee Nuclear Power Plant

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

HEALTH OFFICIALS RECOMMEND POTASSIUM IODIDE

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

There **will likely be/has been** a release of radioactive materials at the plant. Vermont health officials have determined that the release **contains/may contain** radioactive iodine, which could harm the thyroid gland.

Potassium iodide, also known as KI, may protect the thyroid. As a precaution**,** Vermont Health Commissioner Harry Chen has directed individuals who have potassium iodide available to them, to take one dose now, and to ensure their children take one child's dose now.

Health officials caution that you should take no more than one dose at this time. Taking more than one dose at a time will not help, and it could harm you. DO NOT TAKE potassium iodide at all if you have a known allergy to iodine or shellfish.

Recommended dosages are as follows:

Adults: 130 milligrams

- Pregnant or breastfeeding women, adults age 18 and older, and adolescents who weigh 154 pounds or more should take **one 130-mg. tablet**.

Children age 3+ and Adolescents: 65 milligrams

- Children older than age 3 and adolescents older than age 12 through age 18 years old should take **one-half 130-mg. tablet <u>OR</u> one 65 mg. tablet**. Adolescents who weigh 154 pounds or more should take the ADULT DOSAGE of 130 milligrams.

Children 1+ months to age 3: 32 milligrams

- Children older than 1 month through 3 years should take **one-quarter of a 130-mg. tablet, <u>OR</u> one-half of a 65-mg. tablet.**
- Breastfeeding babies should take the dose recommended for their age.

Newborn babies to age 1 month: 16 milligrams

- Babies from birth to 1 month should take **one-eighth of a 130-mg. tablet**

OR one-quarter of a 65-mg. tablet. The tablets may be easily cut with a knife.

- Breastfeeding babies, infants, and children should take the dose recommended for their age.

Dosage by Liquid KI

Adults over 18 years of age: 2 milliliters (ml)

Children age 3 years to 18 years: 1 milliliter (ml)

Children 1+ months to age 3: 0.5 milliliter (ml)

Most potassium iodide tablets are 130-milligrams, but schools and child care facilities may have 65-milligram tablets, which is the recommended dose for school-age children. Most schools and child car facilities also have liquid KI and have been instructed how to provide it to children in their care. The foil that packages each tablet is well-marked with the number of milligrams. Dose instructions are also part of the information that comes with potassium iodide tablets. Liquid KI bottles also provide simple and clear instructions for use.

Facilities that have potassium iodide distribution as part of their approved emergency response plan have also been directed to provide it now to the people in their charge. This includes **LIST: hospitals, nursing homes, schools and some child care facilities**.

This information is intended only for Vermont residents and visitors in **Vernon, Guilford, Brattleboro, Halifax, Marlboro, and Dummerston.** If you are in a Vermont town that is not addressed in this message, it has been determined that your town is not presently at risk.

For additional information, refer to your annual emergency public information calendar. If you have questions or need assistance, call 1-800-736-5530 or 211. For official updates stay tuned to one of the Emergency Alert System stations:

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

If you know of any neighbors or co-workers with language problems, please be sure they are aware of this information and that they understand what they should do.

Members of the media with questions on the Vermont Division of Emergency Management and Homeland Security response can call (800) 347-0488.

APPROVED: _____ Date: _____Time:_____
EOC Manager

This is a Drill

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

VERMONT HEALTH OFFICIALS ISSUE FOOD AND WATER ADVISORY

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

State health officials advise that because of potential surface contamination from the release of radioactive materials by the Vermont Yankee Nuclear Power Plant in Vernon, VT, a Food and Water Advisory has been issued for Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon. Residents of these towns should avoid the use of drinking water for human and animal consumption where the supply is from an open source such as a stream, pond or lake. Bottled water, canned beverages and juices should be used as water sources.

Due to the potential radioactive contamination to garden vegetables and orchard fruit, the following protective actions are required: Before using fruits and vegetables harvested in these four towns since **September 13, 2011,** users should wash, brush, scrub or peel to remove surface contamination.

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560

	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

APPROVED: _____ Date: _____Time:_____
EOC Manager

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

TRAVEL RESTRICTED IN VERMONT YANKEE AREA

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time. Officials are limiting travel into and around the facility. Travel restrictions apply within a five-mile radius of the Vermont Yankee facility at Vernon, Vermont.

Vermont Division of Emergency Management and Homeland Security Director Michael O'Neil requests that residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon limit all non-essential traffic in the area. Non-residents will not be allowed to enter the restricted area except on official business. Public health authorities report that there is no danger from the plant at this time. Residents are urged to stay tuned to local broadcast stations for further information:

Emergency Alert Stations		FM	AM
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	
New Hampshire	WZBK		1220
	WKBK		1290
	WOQL	98.7	
	WKNE	103.7	
	WYRY	104.9	
Massachusetts	WHYN	93.1	560
	WHAI	98.3	
	WRSI	93.9	
	WPVQ	95.3	
	WHMQ		1240

Residents should refer to their annual emergency public information calendar for additional information. Individuals with questions may call the Vermont Division of Emergency

Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530 or 211.

APPROVED: _____ Date: _____Time:_____ _____
EOC Manager

This is a Drill

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

TRANSPORTATION AND SPECIAL EVACUATION ASSISTANCE AVAILABLE

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, and Vernon, VT. The operators of the Vermont Yankee Nuclear Power Plant in Vernon, Vermont declared a Site Area Emergency today at time.

Vermont Division of Emergency Management and Homeland Security has ordered the residents of Brattleboro, Dummerston, Halifax, Guilford, Marlboro and Vernon to evacuate to Bellows Falls Union High School in Westminster, Vermont.

Individuals who require aid in evacuating should contact their Town's Emergency Operations Center:

VT Municipality	*Emergency Phone Number*
Brattleboro	(802) 254-4541
Dummerston	(802) 257-5072
Guilford	(802) 254-9328
Halifax	(802) 368-7318
Vernon	(802) 257-0709
TTY (All Towns)	911

Special buses and other vehicles are available for individuals who request such assistance.

Residents of these communities should refer to their annual Vermont Yankee Emergency Public Information calendar. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Inquiry Hotline at 1-800-736-5530 or 211. Residents should stay tuned to a local Emergency Alert Station for official information and instructions.

Emergency Alert Stations		**FM**	**AM**
Vermont	WTSA	96.7	1450
	WKVT	92.7	1490
	WVAY	100.7	

New Hampshire	WZBK		1220
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	WHAI	98.3	
	WRSI	93.9	
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EOC Manager

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

GOVERNOR TERMINATES STATE OF EMERGENCY

WATERBURY, VT—This is a news release from Vermont Division of Emergency Management and Homeland Security for residents of Brattleboro, Dummerston, Guilford, Halifax, Marlboro, and Vernon, VT. Governor Peter Shumlin, in consultation with emergency management, public safety and public health officials, has terminated the State of Emergency that has existed in the six towns located in the Emergency Planning Zone (EPZ) surrounding the Vermont Yankee Power Station in Vernon, Vermont. The Governor has taken this action in response to the diminished threat from the emergency situation at the Vermont Yankee Nuclear Power Plant.

Public health officials advised Governor Shumlin that the situation at the plant no longer posses a health hazard to the public. Operators of Vermont Yankee also assured the Governor that there would be no further emissions of radioactive materials.

Travel restrictions have been lifted, however, people should continue to follow directions from local authorities. All people may now leave the shelters or other places of lodging. People returning home should exercise the same caution that they used when evacuating.

Governor Shumlin praised the work of state and municipal emergency management personnel in the conduct of their operations during the emergency period. The Governor also noted the cooperation and coordination of actions by the Vermont Yankee officials in bringing this situation to a successful conclusion.

Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211.

APPROVED: _____ Date: _____Time:_____
EOC Manager

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VERMONT DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

NEWS RELEASE

Release:			Contact:	Mark Bosma, Public Information Officer (800) 347-0488 103 South Main Street Waterbury, VT 05671-2101
Time:				
Date:	8/9/2013			

WRITE A HEADLINE

WATERBURY, VT—

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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Time:				
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RESTRICTED ZONE ESTABLISHED AROUND VERMONT YANKEE

WATERBURY, VT — State officials have developed boundaries for an area around the Vermont Yankee Nuclear Power Plant in Vernon in which residents will not be allowed in the coming weeks. State officials have established these boundaries to prevent long-term exposure to the public from radioactive materials released during the accident at Vermont Yankee.

This area, called the Restricted Zone, includes specific areas in the towns of ____ from which residents were previously evacuated on . It also includes certain areas of the towns of located inside the ten-mile radius in which persons were not evacuated. Access Control Points will be established by the Police to control movement into and out of the Restricted Zone.

Environmental monitoring has shown the Restricted Zone to be contaminated with radioactive materials. The contamination is not at a level which threatens the immediate health of residents, but which is at a level above federal public health guidelines for long-term residence.

State and local officials will be providing further guidance on when residents of non-evacuated portions of the Restricted Zone should leave and the items they should take with them. Guidance will also be provided for evacuated residents to return home to get some of their belongings. The length of time residents will be relocated from these areas will be determined by on-going environmental monitoring and lab testing.

Governor Peter Shumlin is developing a request for President Barak Obama to declare disaster areas as a result of the accident at Vermont Yankee. The areas -
- were named in the Governor's emergency proclamation yesterday.

The Governor’s request, will ask the President to make federal disaster programs such as temporary housing assistance, disaster unemployment assistance, and grants available to persons affected by the accident. More information on the Governor's request and the granting of assistance will be announced as soon as possible.

Boundaries for the Restricted Zone are:

-
-
-

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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LIMITED RE-ENTRY INTO RESTRICTED ZONE

WATERBURY, VT— Individuals who live, work, or farm in certain evacuated areas of the state near the Vermont Yankee Nuclear Power Station may be allowed to return to their home, farm, or work place on a temporary basis for specific activities only beginning at (Date/Time)
.

Persons will be allowed to re-enter the Restricted Zone only for activities such as caring for farm animals and maintaining critical installations such as public utilities and industrial facilities. Other requests will be reviewed on a case-by-case basis.

Individuals who wish to return to these areas should go to a re-entry facility for information and to register for temporary re-entry. These facilities are located at:

-
-

At these facilities, information will be provided about the length of time allowed for re-entry; the health risks of entering an area possibly contaminated with radioactive materials; and how potential exposure to radiation can be limited. Personnel monitoring devices will be issued to persons engaged in re-entry activities to measure potential radiation exposure.

Individuals approved for re-entry will be issued an entry pass, and given instructions about where to re-enter and exit the area, and how long they can remain in the area.

Re-entry into the Restricted Zone will only be allowed through the following approved Access Control Points:

-
-

Persons who do not have a valid entry pass will be refused entry by police.

Individuals, vehicles, and any items leaving these areas will be checked for radioactive contamination upon their exit by a monitoring team. Items which are contaminated will be decontaminated or subject to impoundment at the road block.

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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RE-ENTRY OF EVACUATED AREAS

WATERBURY, VT— State officials will allow some residents evacuated near the Vermont Yankee Nuclear Power Station to return to their homes on a permanent basis beginning at (Date/Time)
Residents from the following areas will be allowed to return home:

-
-

Residents are being allowed return to this area because .

Use the following language only if a portion of evacuated areas are affected by this decision: Residents of other evacuated areas are not being allowed to return home at this time because of inconclusive information regarding the possibility of contamination in this area.

Evacuees will be returning to an area which has been vacant for about day(s). Security has been maintained by local police.

Evacuees should take precautions on their return trip and upon arriving at their home, farm, or business, such as:

Carefully inspecting their home, barn, or other buildings and their contents for damage or break-in. A record of damages should be made. Compensation may be available if the damage was caused by or resulted from the recent accident at the Vermont Yankee Nuclear Power Station. If it appears the home or business has been broken into, police should be contacted immediately.

Not using telephones initially, unless there is an emergency. Too many people using the telephones at once could make it difficult for persons with emergencies to complete an important call.

Avoiding areas designated as controlled or off limits. Entry will be allowed only with a valid entry pass and devices to monitor personal radiation exposure. Entry passes may be obtained

at

Driving slowly and defensively. Follow all directions of law enforcement personnel and traffic control devices.

(List other precautions, as needed.)
Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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SAMPLING FOR RADIOACTIVE CONTAMINATION TAKING PLACE

WATERBURY, VT— A number of teams from the Vermont Health Department; Agency of Agriculture, Food and Markets; Agency of Natural Resources; Vermont Yankee; and various federal agencies are sampling food pathways for radioactive contamination levels. Samples of milk, water, fruits, vegetables, etc. as appropriate are being collected from potentially affected areas.

This action is being taken as a result of an emergency at the Vermont Yankee Nuclear Power Station in Vernon, Vermont. As soon as the results of the test results on these samples are available, specific protective actions will be ordered. The public is advised to stand by and tune into an Emergency Alert System radio or television station for further information.

Working with Governor Peter Shumlin at the State Emergency Operations Center in Waterbury, Vermont are state and federal agencies with designated emergency functions. These agencies include: The Departments of Public Safety; Agency of Transportation; Agency of Agriculture, Food, and Markets; Vermont Department of Health; Vermont Division of Emergency Management and Homeland Security; the Federal Emergency Management Agency (FEMA); and the Nuclear Regulatory Commission (NRC). Each agency has extensive emergency procedures designed to respond to a nuclear incident.

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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WRITE A HEADLINE

WATERBURY, VT— Officials from the recommend that home gardeners and small-scale farmers ___ miles (north) (northeast) (east) (southeast) (south) (southwest) (west) (northwest) of Vermont Yankee Nuclear Power Station wait for further information before handling or eating any of their fresh home-grown produce. This will reduce potential radiation exposure from food products which may have been contaminated by the accident at the plant.

However, residents may consume fresh home-grown produce and milk which was harvested before __, as it was unaffected by the accident at Vermont Yankee. Canned or prepackaged foods in home cupboards or refrigerators are safe to eat. Additionally, residents should drink only bottled water or water from covered sources such as wells or municipal water systems, or drink other bottled or canned beverages.

State Environmental Sampling Teams are in the contaminated area taking readings and samples of farm produce, milk, and water. However, they are not available to test the safety of fresh home-grown produce at this time. Additional information and instructions will be forthcoming during the next few hours as the Environmental Sampling Teams together with the Vermont Health Department, analyze the situation.

Home gardeners and small-scale farmers are those persons who raise produce only for their own consumption and do not sell or give away their produce.

Vermont residents should refer to their annual emergency public information calendar for further information. Individuals with questions may call the Vermont Division of Emergency Management and Homeland Security Public Information Hotline at 1-800-736-5530 or 211. Stay tuned to a local Emergency Alert System station for official updates and information:

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PRECAUTIONS FOR FARMERS

WATERBURY, VT— Officials from the __ recommend that home gardeners and small-scale farmers __ miles (north) (northeast) (east) (southeast) (south) (southwest) (west) (northwest) of Vermont Yankee Nuclear Power Station take the following actions to protect themselves while working in their fields, and from consuming contaminated or possibly contaminated home-grown produce:

- Wash, scrub, peel, or shell fresh fruits and vegetables, including roots and tubers, before eating them to remove surface contamination.
- Wash your hands before preparing or eating fresh home-grown food products.
- Residents should drink only bottled water or water from covered sources such as wells or municipal water systems, or drink other bottled or canned beverages.
- Residents may consume home-grown fresh produce and milk which was harvested before , as it was unaffected by the accident at Vermont Yankee. Additionally, canned or prepackaged foods in home cupboards or refrigerators are safe to eat.
- Remove dairy and meat animals from pasture, and shelter them if possible. Provide them with protected feed and water from covered sources.
- Hay or silage stored outside without cover can be used for feed, provided the top foot of the loose stack or top layer from the bale is removed. Care should be exercised in removing the top layers to avoid contaminating the other parts of the stack. Spray a fine mist of water on the stack, not enough to run off, but just enough to keep the dust down, then lay the top layer aside from the feed to be used. After using the stack or bale, cover it with an uncontaminated or new tarp or plastic cover to avoid further contamination.
- Farmers who do not have stored feed should contact the Agency of Agriculture, Food, and Markets at (802) 828-3403.

- Do not use fresh milk from your diary animals, or eggs from your chickens, if you suspect these animals have consumed contaminated feed or water. Poultry raised indoors and given protected feed and water are not likely to be contaminated, nor are their eggs.

- Do not slaughter any animals.
- When you go outside, wear outer clothing that covers all portions of your body, similar to what you would wear when applying pesticides - boots, gloves, coveralls, or long-sleeved shirts, and long pants.

- Wear a protective mask or place a folded, damp cloth bandit-style over your mouth and nose when working outside to prevent inhalation of radioactive materials.

- Do not engage in any dust-producing activities such as cultivating, disking, bailing, or harvesting.

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FRESH FOOD PRECAUATIONS

WATERBURY, VT— Officials from the Vermont Health Department and Agency of Agriculture, Food, and Markets are recommending action to prevent or reduce the possibility that fresh food products, milk, and water supplies will be contaminated by radioactive materials because of the emergency at the Vermont Yankee Nuclear Power Station located in Vernon, Vermont.

These actions apply to home gardeners/farmers, as well as commercial farms, dairies, and food processing plants.

Advisory Protective Actions

Individuals in (Town):

South of

West of

North of

East of

are being asked by state officials to take the following actions to prevent possible contamination of food products and water supplies:

Milk producing animals should be placed on stored feed and covered water.

Livestock should be placed on stored feed and covered water.

All harvested crops should be covered.

Water cisterns should be closed and other surface waters closed or covered, if possible.

Other instructions:

Farmers who do not have stored feed should

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