

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
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 Westminister, 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 Westminister, and staffed primarily by representatives from Town of Westminister, 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 Limit¹	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 **As Low As Reasonable Achievable.** The radiation protection philosophy of minimizing radiation exposure to the lowest practical level.

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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				
<u>Vermont State Emergency Alert System (EAS) Common Program Control Stations</u>				
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
<p>Coordinate with National Weather Service, Albany, NY, for activation of NOAA weather alert radios in EPZ</p> <p>Warning Coordinator 518-435-9568; Menu 518-435-9571; (F) 518-435-9587 Forecasters (unlisted) 518-435-9574</p>				
<p>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.</p> <p>Source: "State of Vermont EAS Operational Plan" - Draft 12/98</p>				

(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 "Radiological 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

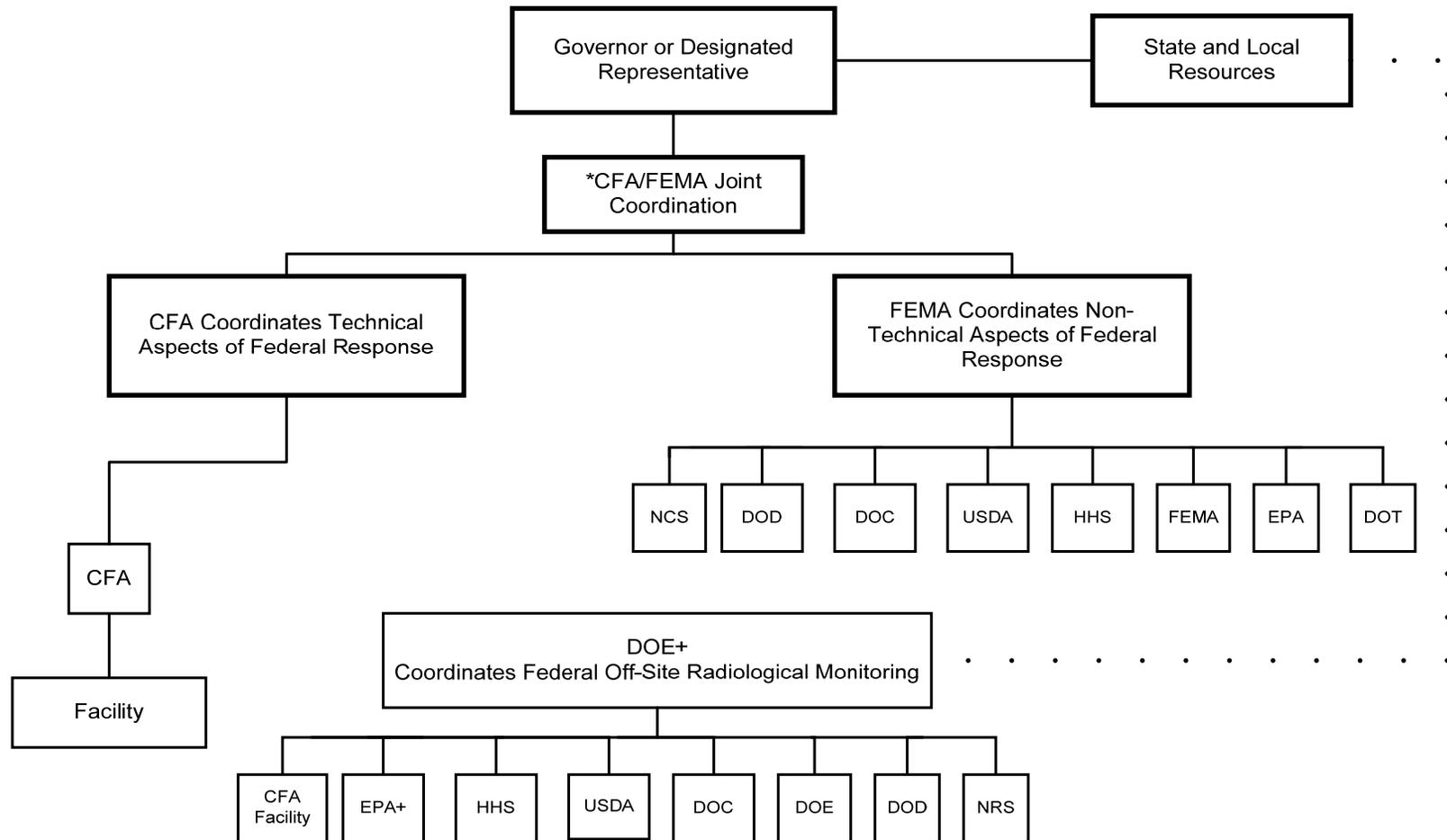
Both technical and non-technical assistance is available from the federal government at the request of the state. The assistance available is outlined in the Nuclear/Radiological Incident Annex to the NRP and the Federal Radiological Monitoring and Assessment Plan (FRMAP). Federal non-technical assistance 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.