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Federal Emergency Management Agency

Washington, D.C. 20472

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October 14, 1988

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Docket and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Public Service Co. of New Hampshire
(Seabrook Station) (Offsite Issues)
Docket Nos. 50-443-OL, 50-444-OL

Gentlemen:

Enclosed are three copies of the Review and Evaluation of Seabrook Plan for Massachusetts Communities, dated October 1988, which the Federal Emergency Management Agency has forwarded today to the Nuclear Regulatory Commission. We are serving this document today on the service list for the above hearing.

If you have any questions please call me at 646-4102.

Sincerely,

H. Joseph Flynn
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Enclosures

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

JUDGE IVAN W. SMITH, CHAIRMAN
JUDGE JERRY HARBOUR
JUDGE GUSTAVE A. LINENBERGER, JR.

In the Matter of)	
)	
Public Service Co. of New Hampshire,)	Docket No. 50-443-OL
et al.)	50-444-OL
)	Offsite Emergency
(Seabrook Station, Units 1 & 2))	Planning Issues
)	
)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the enclosed Review and Evaluation of Sebrook Plan for Massachusetts Communities by the Federal Emergency Management Agency have been served on the following through the U.S. Postal Service, by first-class mail, on this 14th day of October, 1988.

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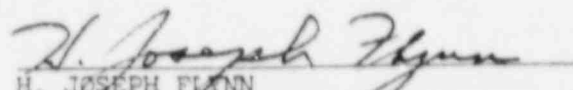
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Dated: October 14, 1988


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Federal Emergency Management Agency

Washington, D.C. 20472

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MEMORANDUM FOR: Frank J. Congel
Director
Division of Radiation Protection and
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Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission

FROM: *Greg S. Wingo*
Richard W. Grimm
Assistant Associate Director
Office of Natural and Technological Hazards Programs

SUBJECT: Review of the Seabrook Plan for Massachusetts
Communities

This is in response to your memorandum of September 9, 1988, which confirmed a modified schedule for the issuance of FEMA's evaluations of various portions of the offsite radiological emergency preparedness plans for the Seabrook Nuclear Power Station. That memorandum confirmed dates agreed to in discussions between our respective staffs and in the August 3 - 4, 1988, pre-hearing conference on the upcoming litigation.

As agreed, attached is a copy of the Federal Emergency Management Agency (FEMA) review, dated October 1988, of the Seabrook Plan for Massachusetts Communities (SPMC) including Amendment 6 and the additional plan materials which you transmitted to us on October 11, 1988. The review was conducted against the assumptions, criteria and planning standards of NUREG-0654/FEMA-REP-1, Rev.1, Supplement 1. It was prepared by FEMA Region I and reflects comments of the Region I Regional Assistance Committee.

As we also agreed, FEMA will provide the Nuclear Regulatory Commission on November 18, 1988, with a consolidated finding on the offsite plans for the entire Seabrook Emergency Planning Zone, including the plans for the States of New Hampshire and Maine and the utility-developed Seabrook Plan for Massachusetts Communities.

If you have any questions, please feel free to contact me at 646-2871.

Attachment
As Stated

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REVIEW AND EVALUATION OF SEABROOK PLAN
FOR MASSACHUSETTS COMMUNITIES



Federal Emergency Management Agency

October 1988

~~88-10170408~~ 173pp.

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ACRONYMS

ACP	Access Control Point
AMS	Aerial Measuring System
ARAC	Atmospheric Release Advisory Capability
ARC	American Red Cross
BNL	Brookhaven National Laboratory
CDC	Center for Disease Control
CPM	Counts per minute
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOT	U.S. Department of Transportation
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EBS	Emergency Broadcast System
ECL	Emergency Classification Level
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPA	U.S. Environmental Protection Agency
ERPA	Emergency Response Planning Area
ETE	Evacuation Time Estimate study
EPZ	Emergency Planning Zone
EWf	Emergency Worker Facility
FAA	Federal Aviation Administration
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
FRC	Federal Response Center
FRERP	Federal Radiological Emergency Response Plan
FRMAP	Federal Radiological Monitoring and Assessment Plan (formerly IRAP - Interagency Radiological Assistance Plan), DOE
GE	General Emergency
GM	Guidance Memoranda
HHS	U.S. Department of Health and Human Services
HUD	Department of Housing and Urban Development
IP	Implementing Procedure
IFO	Incident Field Office

JCAH	Joint Committee on Accreditation of Hospitals
KI	Potassium Iodide
MAGI	Massachusetts Governmental Interface
MCDA/OEP	Massachusetts Civil Defense Agency/Office of Emergency Preparedness
MDPH	Massachusetts Department of Public Health
METS	Melita Emergency Telenotification System
MOU	Memorandum of Understanding
mR	MilliRoentgen
MP \bar{E} M	Millirem
NAS	Nuclear Alert System
NCRP	National Council on Radiation Protection and Measurements
NCS	National Communications System
NESPERN	Northern Essex County Police Emergency Radio Network
NEST	Nuclear Emergency Search Team
NHY	Public Service of New Hampshire, New Hampshire Yankee Division
NHY GRO	New Hampshire Yankee Offsite Response Organization
NIAT	Nuclear Incident Advisory Team
NMCC	National Military Command Center
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOUE	Notification of Unusual Event
NRC	Nuclear Regulatory Commission
ORO	Offsite Response Organization
PA	Protective Action
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PNS	Prompt Notification System
PSNH	Public Service of New Hampshire
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Communications Emergency Services
REM	Roentgen Equivalent Man
RERP	Radiological Emergency Response Plan
RETCO	Regional Emergency Transportation Coordinators
RPU	Remote Programming Unit
SA	Staging Area
SAE	Site Area Emergency
SPMC	Seabrook Plan for Massachusetts Communities
TCP	Traffic Control Point
TLD	Thermoluminescent Dosimeter
TMI	Three Mile Island

TP	Transfer Point
TSC	Technical Support Center
USAF	U.S. Air Force
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USGS	U.S. Geologic Survey
VANS	Vehicular Alert and Notification System
WSI	Weather Service International
YAEC	Yankee Atomic Electric Company
YAEL	Yankee Atomic Environmental Laboratory
YAMAP	Yankee Atomic Mutual Assistance Plan

REVIEW AND EVALUATION OF SEABROOK PLAN FOR MASSACHUSETTS COMMUNITIES

INTRODUCTION

This review was conducted by the Federal Emergency Management Agency, Region I (FEMA I), with the assistance of the Regional Assistance Committee (RAC). The RAC is chaired by FEMA and has the following members: U.S. Department of Agriculture (USDA); U.S. Department of Commerce (DOC); U.S. Department of Energy (DOE); U.S. Department of Health and Human Services (HHS); U.S. Department of the Interior (DOI); U.S. Department of Transportation (DOT); U.S. Environmental Protection Agency (EPA); and the U.S. Nuclear Regulatory Commission (NRC). The RAC functions in accordance with 44 C.F.R. Part 351, "Radiological Emergency Response Planning and Response."

On November 3, 1987, the NRC amended its rules to provide criteria for the evaluation of utility prepared emergency plans in situations in which state and/or local governments decline to participate further in emergency planning. On December 2, 1987, FEMA and the NRC promulgated an interim-use document entitled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (Criteria for Utility Offsite Planning and Preparedness)". The document was published in November 1987 as Supplement 1 to NUREG-0654/FEMA-REP-1, Rev. 1. Supplement 1 was issued as a final document in September 1988. The guidance contained in Supplement 1 is to be used for the development, review, and evaluation of offsite utility radiological planning and preparedness for accidents at commercial nuclear power plants.

This FEMA review and evaluation used NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1, September 1988, as the basis (planning standards and specific criteria) for determining the adequacy of the New Hampshire Yankee Seabrook Plan for Massachusetts Communities. FEMA Guidance Memoranda (GM) and FEMA REP-series documents were utilized to interpret and clarify the criteria contained in Supplement 1.

Following is a summary of the material that has been submitted to FEMA for review and evaluation:

On September 18, 1987, Public Service Company of New Hampshire, New Hampshire Yankee Division (NHY), submitted to the NRC Revision 0 of the "Seabrook Plan for Massachusetts Communities," hereafter referred to as the Plan or SPMC. The Plan consisted of 10 volumes, and one envelope with Public Information Materials. The volumes are as follows: Plan; Procedures; Plan Appendixes A through G; Plan Appendix H; Plan Appendix I; Plan Appendix J; Plan Appendix K; Plan Appendix L; Plan Appendix M; and Plan Appendix N. It should be noted that certain proprietary information was redacted from the submitted material.

On November 27, 1987, the NRC forwarded the Plan to FEMA. Under provisions of the FEMA/NRC Memorandum of Understanding (MOU) of April 1985, the NRC requested FEMA to review the Plan and provide findings (interim finding). The NRC

requested that FEMA utilize the Supplement 1 criteria document as the basis for FEMA's review, evaluation, and FEMA findings.

On December 2, 1987, the NRC supplemented its November 27, 1987 request to FEMA. The NRC requested FEMA to use the following assumption in reviewing and evaluating the Plan: FEMA should assume that in an actual radiological emergency, State and local officials that have declined to participate in emergency planning will: exercise their best efforts to protect the health and safety of the public; cooperate with the utility and follow the utility offsite plan; and have the resources sufficient to implement those portions of the utility offsite plan where State and local response is necessary.

On December 18, 1987, NHY wrote the NRC stating that NHY expected NRC and FEMA to utilize Supplement 1 for the Federal review and evaluation.

On December 30, 1987, NHY provided to the NRC certain information that was redacted from Revision 0 of the Plan.

On December 30, 1987, FEMA Region I requested the RAC and the FEMA staff to review the Plan. FEMA Region I designated Mr. Richard W. Donovan to serve as the RAC Chairman for the review and evaluation of the Plan (Seabrook RAC Chairman).

On January 7, 1988 the Deputy Assistant General Counsel for the NRC notified interested parties that the Alerting System (sirens in the plume EPZ portion of the Commonwealth of Massachusetts) described in the Plan will no longer be relied upon by NHY.

On January 15, 1988, the Seabrook RAC Chairman requested that the FEMA Region I RAC utilize Supplement 1 for their review. The Seabrook RAC Chairman informed the RAC that the following assumptions were to be applied to the review and evaluation of the Plan: in an actual radiological emergency, State and local officials that have declined to participate in emergency planning will: exercise their best efforts to protect the health and safety of the public; cooperate with the utility and follow the utility offsite plan; and have the resources sufficient to implement those portions of the utility offsite plan where State and local response is necessary.

On January 20, 1988, NRC provided certain redacted material to FEMA.

On February 12, 1988, NHY provided additional information in response to the NRC letter, dated February 5, 1988. The following information was provided: Seabrook Station Evacuation Time Estimates and Traffic Management Plan; Documentation on the Seabrook METPAC Computer Software Package and the backup HP-41 CX Calculator EPROM System (these systems provide the means to evaluate the consequences of an off-site radioactive airborne release); Summary of the NHY ORO Training Classes, dated 2/8/88; the draft Farmers Brochure, "Emergency Information for Farmers," and a copy of the existing Massachusetts Department of Agriculture's Farmers Brochure; a copy of the Yankee Atomic Environmental Laboratory Procedures and a copy of the draft Yankee Atomic Mutual Assistance Plan; NHY ORO lesson plans as referenced in Appendix K of the Plan; status report on preparedness efforts for Special Populations in the

Massachusetts Communities; and a status report on congregate care facilities/American Red Cross.

On February 16, 1988, NHY provided plan updates, referred to as Amendment 1.

On February 19, 1988, NHY provided plan updates, referred to as Amendment 2.

On April 1, 1988, NHY provided plan updates, referred to as Amendment 3.

On April 14, 1988, NHY provided plan updates, referred to as Amendment 4.

On April 29, 1988, NHY provided the Seabrook Station Public Alert and Notification System FEMA-REP-10 Design Report, dated April 30, 1988.

On May 23, 1988, NHY provided plan updates, referred to as Amendment 5.

On July 29, 1988, NHY provided proposed revised public information materials.

On August 2, 1988, NHY provided plan updates, referred to as Amendment 6.

On September 22, 1988, NHY provided FEMA with copies of leases and agreements for VANS as well as copies of prescribed Emergency Broadcast System (EBS) messages.

On September 27, 1988, the NRC notified FEMA by memorandum of certain information regarding the role of the American Red Cross in offsite radiological emergency planning at SNPS.

On September 28, 1988, NHY notified the Seabrook RAC Chairman by letter of the plan of NHY ORO to resolve issues in the October 1988 draft Review and Evaluation of Seabrook: Plan for Massachusetts Communities.

On October 6, 1988, NHY provided a letter to the Seabrook RAC Chairman enclosing updated letters of agreement.

The review and evaluation of the Seabrook Plan for Massachusetts Communities is attached. The format reproduces each planning standard and specific criterion of NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1, followed by a statement of the Plan contents related to each review criterion, a Plan reference, and an evaluation section.

The evaluation section contains an evaluation which will be one of the following:

1. "Adequate"
2. "Inadequate"
3. "Not Applicable"

The evaluation under criterion G.1 (public information material) was made in accordance with "A Guide to Preparing Emergency Public Information Materials," FEMA-REP-11 (June 1987). FEMA-REP-11 became official FEMA guidance for such evaluations pursuant to a July 10, 1987 memorandum to all Regional Directors from the Deputy Associate Director, State and Local Programs and Support Directorate, entitled "Regional Periodic Review of REP Public Information Material."

REVIEW AND EVALUATION AGAINST PLANNING STANDARDS AND EVALUATION CRITERIA

A. Assignment of Responsibility (Organization Control) (Planning Standard A):

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Evaluation Criterion

- A.1.a. The offsite plan shall identify the elements of the offsite response organization for Emergency Planning Zones (see Appendix 5 of NUREC-0654/FEMA-REP-1, Rev. 1).¹

Statement

- A.1.a. The Plan (Table 2.0-1) defines the offsite response organization as including the New Hampshire Yankee Offsite Response Organization (NHY ORO), supported by the U.S. Coast Guard (USCG), the DOI, the Federal Aviation Administration (FAA), the American Red Cross, and various private organizations. Although Table 2.0-1 indicates that NHY ORO communicates with the USCG and the FAA, the Plan states in Section 3.1 that "[r]equests to the U.S. Coast Guard and Federal Aviation Administration will be coordinated through the host state for Seabrook, New Hampshire." According to Section 1.1 of the Plan, the Commonwealth of Massachusetts, the City of Newburyport, and the Towns of Amesbury, Merrimac, Newbury, Salisbury, and West Newbury are not currently participating in emergency planning for Seabrook Station. The Plan includes the American Red Cross as a participating organization and the Red Cross has stated in a letter to NHY dated September 10, 1987 that it will respond in case of an emergency. However, a discussion on February 23, 1988 between FEMA staff and Red Cross Southern New England staff indicated that the Red Cross is not presently participating in this planning process. The Plan has been developed in recognition of, and to compensate for the fact that, the Commonwealth of Massachusetts and above-mentioned local communities are not currently participating in

¹Offsite response organization is defined as the utility offsite emergency response organization along with other participating voluntary and private organizations, and local, State and Federal governments engaging in the development of offsite emergency plans for a nuclear power plant.

emergency planning for the Seabrook Station. Portions of the State of New Hampshire and the Commonwealth of Massachusetts are situated within the plume exposure EPZ. Portions of the State of New Hampshire, the State of Maine, and the Commonwealth of Massachusetts are situated within the ingestion exposure EPZ.

Plan Reference

- A.1.a. Section 1.0; Section 2.0; Section 3.1; Figure 1.3-1; Figure 1.3-2; Table 2.0-1; and Table 2.3-1.

Evaluation

- A.1.a. Adequate.

The NRC has addressed the role of the American Red Cross (ARC) in CLI-87-5: e.g., the American Red Cross charter from Congress, as well as American Red Cross policy, require the ARC to provide aid in any radiological or natural disaster. NRC indicated to FEMA (9/27/88 memorandum) that this ruling is applicable to the FEMA review of the SPMC.

We recommend that Table 2.0-1 be revised to correctly reflect the process for coordinating communications with the USCG and FAA.

NHY has indicated (9/28/88 letter) that Table 2.0-1 will be revised in the next amendment to correctly reflect the communications with the USCG and FAA.

Evaluation Criterion

- A.1.b. The offsite response organization shall specify its concept of operations, and its relationship to the total effort. The concept of operation will explain how the offsite response organization will function with non-participating State and local governments, and will specify the various modes of operation.

Statement

- A.1.b. The NHY ORO concept of operations is discussed in section 3.0 of the Plan. A flow chart, Figure 3.1-1, depicts how the NHY ORO will function with nonparticipating Commonwealth and local governments during a radiological emergency. The Plan states that the NHY ORO will function in one of three Modes. Following is a brief description of the three modes:

- **Standby Mode** -- Standby and continue accident assessment and monitor State/local response;
- **Mode 1** -- Supplies needed resources only;
- **Mode 2** -- Implements specific authorized actions, supplies any needed resources, integrates response into State/local response; or takes control if authorized. Integrates NHY, State, local, and Federal Response into Seabrook Plan for Massachusetts Communities.

Plan Reference

A.1.b. Section 3.0; Figure 3.1-1; and IP 2.14.

Evaluation

A.1.b. Adequate.

Evaluation Criterion

A.1.c. The offsite plan shall illustrate these interrelationships in a block diagram. This diagram will define the roles for the offsite response organization and non-participating State and local governments, and identify the lead interfaces.

Statement

A.1.c. The relationships between the NHY ORO, the participating organizations, and the nonparticipating organizations are illustrated in Figure 2.0-1. Personnel assigned to each NHY ORO position are set out in Figure 2.1-1. The lead interfaces between the NHY ORO and nonparticipating Commonwealth and local governments are summarized in Table 2.2-1 and Table 2.2-2.

Plan Reference

A.1.c. Section 2.0; Section 2.1; Section 2.2; Figure 2.0-1; Figure 2.1-1; Table 2.2-1; and Table 2.2-2.

Evaluation

A.1.c. Adequate.

Evaluation Criterion

- A.1.d. The offsite response organization shall identify a specific individual by title who shall be in charge of the emergency response.

Statement

- A.1.d. IP 1.1 describes the actions for the NHY ORO Offsite Response Director and Assistants in the event of an emergency at Seabrook Station.

The Offsite Response Director is responsible for directing the NHY ORO Response Organization in Massachusetts. The Offsite Response Director responsibilities include the following: working with the Governors of New Hampshire and Massachusetts; working with the Seabrook Station Response Manager; determining protective action recommendations (PARs) for Massachusetts; obtaining approval from Governor of Massachusetts to implement PAs and response activities in Massachusetts; issuing public information material concerning response activities; approving exposures greater than 25 rem for NHY ORO personnel only; committing resources from New Hampshire Yankee, and requesting Federal Assistance and working with FEMA. There are two NHY Assistant Offsite Response Directors for each shift. One is responsible for implementing PAs. The other is responsible for providing communications between NHY ORO and the various Federal and state organizations and the utility. In the event the Offsite Response Director has to leave the facility, one of the Assistant Offsite Response Directors will act as Offsite Response Director.

The Offsite Response Director is responsible for supervising six subordinates (Fig. 2.1-1). Attachment 1 of IP 1.1 (Federal Support Coordination) addresses the interfaces with the various Federal agencies. Attachment 2 of IP 1.1 (Conditional Response Activities) addresses the interfaces with the Commonwealth of Massachusetts, the six local Massachusetts communities, the State of New Hampshire, and Seabrook Station. Attachment 3 of IP 1.1 addresses the ongoing activities of the Offsite Response Director and describes the management style of the Offsite Response Director. The management style includes, among other things, a briefing by key staff following each change in classification (ECL) and each PAR and PA.

Plan Reference

- A.1.d. Section 2.1; Figure 2.1-1; Section 3.1; and IP 1.1.

Evaluation

- A.1.d. Adequate.

Evaluation Criterion

- A.1.e. The offsite response organization shall provide for 24-hour per day emergency response, including 24-hour per day staffing of communications links.

Statement

- A.1.e. NHY ORO states that it is structured for and capable of providing and maintaining 24-hour staffing for a protracted emergency. The communications link between Seabrook Station and the NHY ORO is designated as the NHY ORO EOC Contact Point, which is staffed on a 24-hour basis.

Plan Reference

- A.1.e. Section 2.1.1; Section 3.2.1; Section 3.2.2; and IP 2.1.

Evaluation

- A.1.e. Adequate.

Evaluation Criterion

- A.2.a. The offsite response organization shall specify the functions and responsibilities for major elements and key individuals by title, of emergency response, including the following: Command and Control, Alerting and Notification, Communications, Public Information, Accident Assessment, Public Health and Sanitation, Social Services, Fire and Rescue, Traffic Control, Emergency Medical Services, Law Enforcement, Transportation, Protective Response (including authority to request Federal assistance and to initiate other protective actions), and Radiological Exposure Control. The description of these functions shall include a clear and concise summary such as a table of primary and support responsibilities using the agency as one axis, and the function as the other. This description shall specify those functions which require State and local authorization before implementing, such as:

- i. Directing traffic;
- ii. Blocking roadways, erecting barriers in roadways and channeling traffic;
- iii. Posting traffic signs on roadways;

- iv. Removing obstructions from public roadways, including towing vehicles;
- v. Activating sirens and directing the broadcasting of EBS messages;
- vi. Making decisions and recommendations to the public concerning protective actions for the plume exposure pathway;
- vii. Making decisions and recommendations to the public concerning protective actions for the ingestion exposure pathway;
- viii. Making decisions and recommendations to the public concerning recovery and reentry;
- ix. Dispensing fuel from tank trucks to automobiles along roadides;
- x. Performing access control at an EOC, relocation centers and the EPZ perimeters; and

The offsite plan shall also identify similar functions and responsibilities and interfaces for an anticipated State and local response to an emergency.

Statement

- A.2.a. The NHY ORO emergency response functions and responsibilities for key individuals are specified in Table 2.0-1. The functions include command and control, communications, notifications, public alerting, public information, accident assessment, shelter-in-place, evacuation, access and traffic control, food, water and milk control, radiological exposure control, emergency medical services, congregate care, law enforcement, fire and rescue, public health and sanitation, and reentry and recovery.

We find Table 2.0-1 to be incomplete: the DOI is not listed as a Federal response agency, and the USCG and FAA are not listed as being assigned the primary responsibility assigned them in the concept of operations. Table 2.0-1 omits the responsibilities assigned to regional utilities by the Yankee Atomic Mutual Assistance Plan in Section 2.1.1 for notification, radiological exposure control, and traffic control. We could not locate the functions of social services and transportation.

Tables 2.2-1, 2.2-2, 2.3-1, in Section 2, indicate the primary and support responsibilities for NHY ORO, Commonwealth, local, Federal, and private organizations. Attachment 7 to IP 2.14 includes textual descriptions of the functions which require Commonwealth and local authorization before implementation.

Plan Reference

- A.2.a. Section 2.1.1; Table 2.0-1; Table 2.2-1; Table 2.2-2; Table 2.3-1; and IP 2.14.

Evaluation

- A.2.a. Adequate.

We recommend that Table 2.0-1 be revised to include the DOI and to include the primary responsibility designations for the DOI, USCG, the Yankee Atomic Mutual Assistance Plan, and FAA. We recommend that Section 2.1.1 be revised to specify the responsibilities assigned to the Yankee Atomic Mutual Assistance Plan. NHY has indicated (9/28/88 letter) that Table 2.0-1 and Section 2.1.1 will be revised in the next amendment to reflect the role of the Yankee Atomic Mutual Assistance Plan.

Evaluation Criterion

- A.2.b. The offsite plan shall contain where applicable (by reference to specific acts, codes or statutes) the legal basis for such authorities including those that reserve functions to State and local governments.

Statement

- A.2.b. The Plan identifies legal authorities regarding the involvement of the Commonwealth of Massachusetts in plans and preparedness for a radiological emergency at a commercial nuclear power plant. The Plan identifies an NRC regulation regarding the involvement of NHY ORO in plans and preparedness for a radiological emergency at a commercial nuclear power plant.

Plan Reference

- A.2.b. Section 1.2.

Evaluation

- A.2.b. Adequate.

Evaluation Criterion

- A.3. The offsite plan shall include written agreements referring to the concept of operations developed between Federal agencies, the offsite response organization, and other support organizations having an emergency response role within the Emergency Planning Zones. The agreements shall identify the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information. These agreements may be provided in an appendix to the offsite plan or the offsite plan itself may contain descriptions of these matters and a signature page in the offsite plan may serve to verify the agreements. The signature page format is appropriate for organizations where response functions are covered by laws, regulations or executive orders where separate written agreements are not necessary.

Statement

- A.3. NHY and the State of New Hampshire have executed a Letter of Agreement "to establish radiological emergency preparedness notification and response." It specifies concepts of operation between the two regarding alert and notification, exchanges of information, evaluation and implementation of precautionary actions for special populations, accident assessment measures for both the plume and ingestion exposure EPZs, and the coordination of public information and rumor control activities. Specific lead functions are assigned to the State of New Hampshire concerning the notification and coordination of emergency activities with the State of Maine, the USCG, the FAA, and the Boston & Maine Railroad. The USCG has signed a Memorandum of Understanding with the State of New Hampshire to provide control, notification, and restriction of waterborne traffic.

The NHY ORO will communicate directly with the DOI. NHY ORO has an agreement with the DOI. This agreement is verified by a signature page acknowledged by New Hampshire Yankee and the Parker River National Wildlife Refuge.

Plan Reference

- A.3. Section 3.1; Section 7.2.2; Appendix C; and Appendix F.

Evaluation

- A.3. Adequate.

Evaluation Criterion

- A.4. The offsite response organization shall be capable of continuous (24-hour) operations for a protracted period. The individual in the offsite response organization who will be responsible for assuring continuity of resources (technical, administrative, and material) shall be specified by title.

Statement

- A.4. The NHY ORO states that it is capable of providing and maintaining a continuous (24 hour) staffing for a protracted emergency. Two shifts of personnel have been designated for most positions. Figure 2.1-1 summarizes the various positions and numbers of personnel assigned to each. The Support Services Coordinator is responsible for procurement of manpower and resources to support the emergency response. The Plan states (Section 2.1.1) that certain evacuation related positions, as identified in Figure 2.1-1, only require one shift. In addition, the Plan provides a 20% staffing cushion for the single-shift positions to account for those who might be unavailable at any particular time.

Plan Reference

- A.4. Section 2.1.1 and Figure 2.1-1.

Evaluation

- A.4. Adequate.

C. Emergency Response Support and Resources (Planning Standard C):

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

Evaluation Criterion

C.1. The Federal government maintains in-depth capability to assist licensees, States and local governments through the Federal Radiological Emergency Response Plan. Each offsite response organization and licensee shall make provisions for incorporating the Federal response capability into its operations plan, including the following:

C.1.a. specific persons by title authorized to request Federal assistance; see A.1.d, A.2.a;

Statement

C.1.a. The New Hampshire Yankee Offsite Response Director, through the Assistant Offsite Response Director (Support Liaison), is authorized to request Federal assistance.

Plan Reference

C.1.a. Section 2.3.2.

Evaluation

C.1.a. Adequate.

Evaluation Criterion

C.1.b. specific Federal resources expected, including expected times of arrival at specific nuclear facility sites; and

Statement

C.1.b. Specific Federal resources are identified for each Federal agency that is expected to assist in the offsite response. Specific times of arrival are estimated to be between three and eight hours for the lead Federal response agencies.

Plan Reference

C.1.b. Section 2.3; Table 2.3-1; and Table 2.3-2.

Evaluation

C.1.b. Adequate.

Evaluation Criterion

C.1.c. specific licensee and offsite response organization resources available to support the Federal response, e.g., air fields, command posts, telephone lines, radio frequencies and telecommunications centers.

Statement

C.1.c. The Plan lists a number of airports available for Federal use. Space and telephone lines have been designated for FEMA and NRC in the NHY ORO EOC and Media Center. The Assistant Offsite Response Director, Support Liaison, is responsible for providing communication links between NHY ORO and Federal agencies, and other non-technical support for the Federal response.

Plan Reference

C.1.c. Section 2.1; Section 2.3.2; Section 4.0; Section 5.1.2; Section 5.2.1; Section 5.4; IP 1.1; Figure 4.0-1; Figure 5.2-2; and Figure 5.2-11.

Evaluation

C.1.c. Adequate.

Evaluation Criterion

C.2. The offsite response organization may dispatch representatives to the licensee's near-site Emergency Operations Facility. (Technical analysis representatives at the near-site EOF are preferred.)

Statement

- C.2. The NHY ORO EOC and the Seabrook Station EOF are located within the same facility. Key interfaces for these two organizations occur between the Seabrook Station Response Manager and the NHY Offsite Response Director (which can be via the NHY ORO Technical Advisor) and between the Seabrook Station EOF Coordinator and the NHY ORO Assistant Offsite Response Director, Support Liaison.

Plan Reference

- C.2. Section 2.1; Section 5.1; and Section 5.2.

Evaluation

- C.2. Adequate.

Evaluation Criterion

- C.3. The offsite response organization shall identify radiological laboratories and their general capabilities and expected availability to provide radiological monitoring and analyses services which can be used in an emergency.

Statement

- C.3. The Plan identifies a radiological laboratory (with multiple facilities), and its general capabilities and expected availability for analysis service. Air sample cartridges and particulate filters are to be delivered to the Seabrook Station EOF in Newington, New Hampshire, where they are to be analyzed for radioiodine and particulates by personnel and equipment from Yankee Atomic Electric Company. A mobile laboratory equipment van (belonging to the Yankee Atomic Environmental Laboratory) is identified in the Plan for analysis of air samples and environmental samples. The NHY ORO will deliver environmental and food samples to the Yankee Atomic Environmental Laboratory in Westborough, Massachusetts, for analysis. The laboratory sample analysis capacities are as follows: for the Mobile Laboratory Equipment Van, gamma spectroscopy for screening samples, average time for screening is 10-15 minutes, and 96 samples can be analyzed per day; and for the Yankee Atomic Environmental Laboratory, gamma spectroscopy analysis for radioiodines, cesiums and other fission products, an average time for sample analysis of 4 hours, and 50-100 samples can be analyzed per day, and analysis for strontium, average time for sample analysis of 1-2 days, and 10-20 samples can be handled per day.

NHY ORO states that additional laboratory assistance capabilities can be obtained by activation of the New England Compact by the Commonwealth of Massachusetts or the State of New Hampshire, and additional Federal laboratory support can be obtained through the activation of the FRERP.

Plan Reference

C.3. Section 3.3.4 and Table 3.3-3.

Evaluation

C.3. Adequate.

Evaluation Criterion

C.4. The offsite response organization shall identify nuclear and other facilities, organizations or individuals which can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate letters of agreement.

Statement

C.4. NHY ORO has contracts and letters of agreement with various support organizations, and individuals. These support groups include: (1) the American Red Cross, which will operate and provide staff for Congregate Care Centers (if extra staff are available, will provide staff for the Reception Centers); (2) Emergency Broadcast System (use of EBS stations to broadcast emergency or public information messages); (3) hospitals (hospitals outside the Plume Exposure EPZ to treat contaminated injured individuals or accept evacuees from special facilities within the EPZ); (4) ambulance companies (provide emergency vehicles capable of transporting nonambulatory and contaminated and/or injured individuals); (5) bus companies (vehicles and drivers capable of transporting evacuees, including school children out of the Plume Exposure EPZ); (6) Yankee Atomic Electric Company (support available from Yankee Atomic Laboratory and regional nuclear utilities, e.g., laboratories, instrumentation, and monitoring and field sampling personnel, traffic guides, route guides, reception center personnel and other non-technical Yankee personnel); (7) road crew companies (towing service during an evacuation); (8) helicopter service (helicopters for surveillance of evacuation, road impediment spotting, transportation of key personnel, and field sample transportation); (9) snow removal (snow removal from NHY ORO facilities); and (10) leases/letters of agreement for the VANS staging areas. NHY has a letter of agreement for radiological waste disposal and transportation, if required, from the decontamination facilities.

See comments in A.1.a regarding the ARC and the NRC memorandum of 9/27/88.

Plan Reference

- C.4. Section 2.4 and Appendix C.

Evaluation

- C.4. Adequate.

NHY has indicated (9/28/88 letter) that the VANS leases and updated letters of agreement will be included in the next amendment.

Evaluation Criterion

- C.5. The offsite response organization shall identify liaison personnel to advise and assist State and local officials during an actual emergency in implementing those portions of the offsite plan where State or local response is identified.

Statement

- C.5. NHY ORO has identified personnel that will accompany, advise, and/or assist Commonwealth and local officials in implementing portions of the NHY ORO Plan.

Personnel assigned to advise and assist Commonwealth and local officials include: (1) Local EOC Liaisons (one liaison reports to each local EOC and assists in the response efforts of that community); (2) Dosimetry Record Keepers (one record keeper to issue dosimetry for local emergency workers); (3) State Liaisons (one liaison reports to each of the following facilities: the State EOC in Framingham, the Area I EOC in Tewksbury, and the MDPH office in Boston to better support the State's emergency response and to provide status reports of the State's emergency response directly to the NHY ORO); and (4) Public Information Coordinator/Advisor (reports to the Media Center) and is responsible for assisting Commonwealth and local government officials with public information and rumor control activities.

We note that Attachment 4 to IP 2.14 directs the Local EOC Liaisons to request authorization from Local EOC officials for School and Special Population Liaisons to report to local EOCs, which is inconsistent with the concept of operations for this function that was changed in Amendment 6.

Plan Reference

C.5. Section 1.1; Section 2.2; IP 1.8; IP 1.9; IP 1.10; IP 1.11; and IP 2.14.

Evaluation

C.5. Adequate.

We recommend that IP 2.14 be revised to correctly reflect the duty station for school and special population liaisons.

NHY has indicated (9/28/88 letter) that IP 2.14 will be revised in the next amendment to correctly reflect that the School and Special Population Liaisons do not report to the local EOCs.

D. Emergency Classification System (Planning Standard D):

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

Evaluation Criterion

- D.3. The offsite response organization shall establish an emergency classification and emergency action level scheme consistent with that established by the facility licensee.

Statement

- D.3. The Plan establishes four emergency classification levels: (1) Notification of Unusual Event; (2) Alert; (3) Site Area Emergency; and (4) General Emergency. The Plan states that this emergency classification system is based upon the Emergency Action Levels established by the Seabrook Station.

Plan Reference

- D.3. Section 1.3.2.

Evaluation

- D.3. Adequate.

Evaluation Criterion

- D.4. The offsite response organization should have procedures in place that provide for implementing emergency actions and that provide for advising State and local officials on emergency actions to be taken which are consistent with the emergency actions recommended by the nuclear facility licensee, taking into account local offsite conditions that exist at the time of the emergency.

Statement

- D.4. NHY ORO has procedures in place to implement emergency actions.

NHY ORO plans to advise the Commonwealth and local officials on appropriate emergency actions.

Plan Reference

D.4. Section 3.1 and IP 2.14.

Evaluation

D.4. Adequate.

E. Notification Methods and Procedures (Planning Standard E):

Procedures have been established for notification, by the licensee of State and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and followup messages to response organizations and public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Evaluation Criterion

- E.1. The offsite response organization shall establish procedures which describe the bases for notification of all response organizations consistent with the emergency classification and action level scheme set forth in Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1. These procedures shall include means for verification of messages. The specific details of verification need not be included in the offsite plan.

Statement

- E.1. Notification of response organizations is triggered by the standard four-level ECL scheme from NUREG-0654 FEMA-REP-1, Rev. 1.

Initial notification of the NHY ORO is addressed in Section 3.2.2. It is performed by the Seabrook Station Control Room Communicator contacting the NHY ORO EOC Contact Point, using the NAS or one of two backup systems. Verification will not be performed if notification is via NAS since it is a secure system; if a backup system is used, verification will be by call-back over the same system. At ECLs of Alert or higher, receipt of notification will be taken over by the NAS Communicator upon arrival at the NHY ORO EOC.

Notification of Massachusetts state and local government agencies is addressed in section 3.2.3. The Seabrook Station Control Room Communicator will notify the Massachusetts State Police. The Plan references the Massachusetts Radiological Emergency Response Plan with respect to notification of other Commonwealth and local government units by the State Police. The NHY ORO EOC Contact will also provide backup notification to local government dispatchers at ECLs of Alert or higher.

Notification of Federal and support organizations is addressed in section 3.2.4. Responsibility for notification of Federal agencies is placed with the State of New Hampshire as the host state (p. 3.2-12), except that the NHY ORO EOC Contact or the NAS Communicator will notify the DOI at the Parker River National Wildlife Refuge in order to implement public notification.

The NHY ORO will also notify contracted support organizations: e.g., bus companies, road crew companies, ambulance companies, and the Red Cross. Table 3.2-1 indicates who within the NHY ORO is responsible for contacting each type of support organization, and at what ECL. All support organizations are contacted at Alert or higher ECLs, but many are only notified after the responsible notifier has arrived at their response facility.

Plan Reference

- E.1. Section 3.2.1; Section 3.2.2; Section 3.2.3; Section 3.2.4; Figure 3.2-1; Figure 3.2-2; Table 3.2-1; IP 2.1; Appendix G; Appendix H; and Appendix M.

Evaluation

- E.1. Adequate.

Evaluation Criterion

- E.2. The offsite response organization shall establish procedures for alerting, notifying, and mobilizing its own emergency response personnel, and for alerting and notifying non-participating State and local governments.

Statement

- E.2. Notification and mobilization of NHY ORO is initiated by Security at the NHY ORO EOC Contact Point or by the NAS Communicator. Key personnel carry pagers and are contacted at NOUE. The rest of the NHY ORO are contacted at the Alert ECL via an automated telephone dialing system, the Melita Emergency Telenotification System (METS). Table 3.2-1 indicates which personnel are notified and which are mobilized at each ECL. Procedures have been established for alerting and notifying non-participating State and local governments. Telephone tree notification systems have been set up as a backup personnel notification system. Procedures have been established for alerting and notifying non-participating State and local governments. See comments under F.1.e.

Plan Reference

- E.2. Section 3.2.2; IP 2.1; Appendix G; and Appendix H.

Evaluation

- E.2. Adequate.

Evaluation Criterion

- E.3. The offsite response organization shall establish a system for disseminating to the public appropriate information contained in initial and followup messages received from the licensee (see Evaluation Criteria E.3 and E.4 in NUREG-0654/FEMA REP-1, Rev. 1) including the appropriate notification to appropriate broadcast media, e.g., the Emergency Broadcast System (EBS).

Statement

- E.3. The primary system for disseminating information to the public is EBS. In event of an emergency, the NHY ORO Offsite Response Director will request authority from the Commonwealth of Massachusetts to utilize EBS to broadcast emergency information and instructions to the public. Each instructional message broadcast over EBS will also be released as a news release by the Media Center.

In February 1988, FEMA personnel visited the primary EBS station to determine its capabilities. The current capability of the identified EBS radio station includes the ability to record and broadcast emergency instructions and information to the public. The primary EBS station has a backup power supply.

The Public Notification Coordinator, once the NHY ORO is activated, begins preliminary planning with the Radiological Health Advisor and the Technical Advisor regarding the possible PARs. Upon the orders of the NHY Offsite Response Director, the Public Notification Coordinator selects the appropriate EBS message, completes the appropriate sections, reviews the message with the NHY Offsite Response Director, coordinates the message with the State of New Hampshire, and the appropriate Massachusetts official, obtains the NHY Offsite Response Director's approval for broadcasting the EBS message, faxes the EBS message to the EBS radio station, requests the EBS radio station to broadcast the message three times consecutively, and then every 15 minutes thereafter. The Public Notification Coordinator has the responsibility to direct the Communications Coordinator to activate the siren system and to advise the Special Population Coordinator on the need to initiate notification of hearing-impaired people. Actual broadcast of the message is monitored by the Public Notification Coordinator. The Public Notification Coordinator also supplies copies of the EBS message to the Public Information Advisor, the Support Services Coordinator, the School Coordinator, and the Special Population Coordinator.

In a fast breaking emergency, the Seabrook Station Short-Term Emergency Director can request authorization from the Governor of Massachusetts and perform the EBS functions ordinarily performed by the Public Notification Coordinator. (See discussion under element E.6.)

Plan Reference

E.3. Section 3.2.5; Section 3.7.3; IP 2.12; and IP 2.13.

Evaluation

E.3. Adequate.

Evaluation Criterion

E.4. The offsite response organization shall establish administrative and physical means, and the time required for notifying and providing prompt instructions to the public within the plume exposure pathway Emergency Planning Zone (see Appendix 3 of NUREG 0654/FEMA-REP-1, Rev. 1 and FEMA-REP-10). It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. The offsite response organization shall have the administrative and physical means to activate the system.

Statement

E.4. The Plan references the Vehicular Alert and Notification System (VANS) for alerting of the general (resident) population, the beach transient population at Salisbury Beach and Plum Island Beach, and persons on inland waterways. The VANS is not operational at this time. Administrative procedures exist for deploying and activating the VANS.

We could not locate Figure 5.2-12, which is supposed to be the VANS Staging Area layout.

The NHY ORO has established six supplemental alerting systems:

(1) Tone alert radio receivers are to be offered to schools, day care centers, nursing homes, hospitals, medical facilities, campgrounds, businesses with 50 or more employees at one location, and other selected facilities within the plume EPZ as a backup system (p. 3.2-15), prior to full power operation of Seabrook Station. These tone alert radios have not been distributed at this time.

(2) The transients within the Parker River National Wildlife Refuge on Plum Island are to be notified by a route alerting system operated by the DOI;

(3) Noninstitutionalized special populations, including hearing-impaired individuals, are to be telephoned individually by NHY ORO; if telephone contact is not made, the back up system is for NHY ORO personnel to be

dispatched to perform door-to-door alerting and notification and to offer assistance;

(4) Schools, day care centers, nursing homes, hospitals, medical facilities, and other special facilities are to be telephoned individually by NHY ORO;

(5) Persons on the Atlantic Ocean within the plume EPZ will be notified by the USCG; and

(6) An Airborne Alert System (helicopter mounted siren system).

In a fast breaking emergency, the plan calls for the Seabrook Station Short-term Emergency Director to request authorization from the Governor of Massachusetts, and activate the Vehicular Alert and Notification System and EBS. In cases when the NHY ORO EOC is activated, the NHY, upon authorization by the officials of the Commonwealth of Massachusetts, will direct the activation of the Vehicular Alert and Notification System.

Plan Reference

E.4. Section 3.2.5; Section 3.6.1; Section 3.7.3; Section 5.2.5; IP 1.9; IP 1.10; IP 2.7; IP 2.11; IP 2.13; IP 2.15; and IP 2.16.

Evaluation

E.4. Inadequate.

The Vehicular Alert and Notification System (VANS) is not operational at this time.

We recommend that Figure 5.2-12 be provided.

NHY has indicated (9/28/88 letter) that the VANS Staging Area layout diagram will be included in the next amendment.

Evaluation Criterion

E.5. The offsite response organization shall provide written messages intended for the public, consistent with the licensee's classification scheme. In particular, draft messages to the public giving instructions with regard to specific protective actions to be taken by occupants of affected areas shall be prepared and included as part of the offsite plans. The prescribed messages should address the various conditions such as the delegation of authority by the State and local governments to the offsite response organization to issue prompt instructions. Such messages should include

the appropriate aspects of sheltering, ad hoc respiratory protection, e.g., handkerchief over mouth, thyroid blocking, or evacuation. The role of the licensee is to provide supporting information for the messages. For ad hoc respiratory protection see "Respiratory Protective Devices Manual" American Industrial Hygiene Association, 1963, pp. 123-126.

Statement

- E.5. There are prescribed messages for a combination of emergency conditions. Most messages include a variety of choices among PA options and areas to which they apply. The prescribed messages are contained in the Public Notification Coordinator Position Packet and upon electronic media stored at the NHY ORO EOC.

Plan Reference

- E.5. Section 3.2.5; Section 3.7.3; IP 2.13; and copies of prescribed messages provided to FEMA.

Evaluation

- E.5. Adequate.

Evaluation Criterion

- E.8. There shall be provisions for coordinating emergency messages with participating and non-participating State and local governments.

Statement

- E.8. Responsibility for coordinating with New Hampshire and appropriate Massachusetts officials is assigned to the Public Notification Coordinator. The coordination process is built into the EBS procedure. Coordination with the Commonwealth of Massachusetts consists of requesting authorization from the Governor to issue the prescribed messages.

Plan Reference

- E.8. Section 3.2.5; IP 1.1; IP 2.13; and IP 2.14.

Evaluation

- E.8. Adequate.

F. Emergency Communications (Planning Standard F):

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Evaluation Criterion

F.1. The communication plans for emergencies shall include organizational titles and alternates for both ends of the communication links. Reliable primary and backup means of communication for the utility and the offsite response organization shall be established. The utility and the offsite response organization shall establish the capability to communicate with non-participating State and local governments via normal emergency telephone number(s) (e.g., 911) and via one other backup mode such as the ability to transmit via existing emergency radio frequencies. Each offsite plan shall include:

F.1.a. Provision for 24-hour per day notification to and activation of the offsite response organization's emergency response network; and at a minimum, a telephone link and alternate, including 24-hour per day manning of communication links that initiate emergency response actions;

Statement

F.1.a. The Plan provides that initial notification of an emergency classification be received by the NHY ORO EOC Contact Point which is manned on a 24-hour basis by security personnel. This notification is to be sent by the Seabrook Station Control Room Communicator by means of the Nuclear Alert System (NAS), a system of microwave and telephone links with conferencing capabilities. Backups for NAS are (1) the Dimension 2000 system, a NHY microwave telephone that does not rely solely on telephone company central office switching; and (2) commercial telephone lines.

Plan Reference

F.1.a. Section 3.2.2; Section 4; Section 4.1; Section 4.2; and Figure 4.0-1.

Evaluation

F.1.a. Adequate.

Evaluation Criterion

- F.1.b. Provision for communications with contiguous States and local governments within the Emergency Planning Zones;

Statement

- F.1.b. The Plan provides for communications with the State of New Hampshire EOC, New Hampshire State Police, New Hampshire Office of Emergency Management, and the New Hampshire IFO by means of NAS with commercial telephone as backup. NAS extensions and commercial telephone numbers are given for these New Hampshire agencies and facilities in Appendix H. Appendix H gives the commercial telephone numbers of the Division of Public Health Services of the New Hampshire Department of Health and Human Services. The NHY ORO Offsite Response Director or the NHY Assistant Offsite Response Director, Support Liaison, have responsibility for most communications with New Hampshire. The Plan does not address communications with local governments in New Hampshire. The State of New Hampshire will coordinate any actions necessary on behalf of local New Hampshire governments.

Figure 4.0-1 states that MAGI is an additional backup communications link between the New Hampshire State EOC and the ORO EOC, which is inconsistent with the statement in Appendix H (p. H-91) that RACES is the link. Massachusetts Government Interface (MAGI) is the collective name given to several radio networks that can be used to coordinate emergency response activities of Federal, state, local, and private response organizations. We note that RACES is one component of MAGI.

The Plan addresses communications with the Commonwealth of Massachusetts by means of NAS, with commercial telephones, and the MAGI as backups. Appendix H contains commercial telephone numbers of the offices of other relevant Massachusetts agencies.

The Plan provides that communications with local Massachusetts EOCs will be by means of commercial telephone as the primary system, and the MAGI system as backup. For five of the six local governments there are five elements for MAGI: state-to-local radio frequency; local dispatch radio network; command and control radio frequency; RACES; and NESPERN. For Amesbury, there are only the first two elements.

Plan Reference

- F.1.b. Section 4; IP 1.1; Figure 4.0-1; and Appendix H.

Evaluation

F.1.b. Adequate.

We recommend that the inconsistency noted in Figure 4.0-1 and Appendix H be resolved.

NHY has indicated (9/28/88 letter) that Figure 4.0-1 will be revised in the next amendment.

Evaluation Criterion

F.1.c. provision for communications as needed with Federal emergency response organizations;

Statement

F.1.c. The Plan addresses communications with Federal agencies. Three Federal agencies have primary response responsibilities: USCG; the FAA; and DOI, whose Fish and Wildlife Service administers the Parker River National Wildlife Refuge on Plum Island. Commercial telephone is identified as a communication link with these Federal agencies, as well as with FEMA and several other Federal agencies. The only Federal agencies for which backup systems were found were the USCG and FEMA. In Appendix H, the statement is made that other Federal communications links are available through the Seabrook Station EOF, which is located in the same building as the NHY ORO EOC. The Plan states that the communications links to the Federal agencies in the EOF are described in the State of New Hampshire Radiological Emergency Response Plan.

Figure 4.0-1 states that MAGI is a communications link between the ORO EOC and FEMA, which is inconsistent with the statement in Appendix H (p. H-82) that RACES is the link.

Plan Reference

F.1.c. Section 4; Figure 4.0-1; and Appendix H.

Evaluation

F.1.c. Adequate.

We recommend that the inconsistency noted in Figure 4.0-1 and Appendix H be resolved.

NHY has indicated (9/28/88 letter) that Figure 4.0-1 will be revised in the next amendment.

Evaluation Criterion

- F.1.d. provision for communications between the nuclear facility and the licensee's near-site Emergency Operations Facility, offsite response organization's emergency operation centers, and radiological monitoring teams;

Statement

- F.1.d. The Plan provides for three communications links with each of three Seabrook Station facilities: the control room, the Technical Support Center, and the EOF. These links are NAS, Dimension 2000, and commercial telephone. These systems are located in the Communications Room of the NHY ORO EOC and are manned by the NHY ORO EOC Contact or the NAS Communicator.

The primary communications link with the radiological monitoring teams and sample collection teams is the Public Service of New Hampshire (PSNH) Radio Network, with commercial telephone as backup. The NHY ORO EOC staff person with responsibility for communicating with the field monitoring teams and sample collection teams is the Field Team Dispatcher, who reports to the Accident Assessment Coordinator.

The Plan addresses communications between the NHY ORO EOC and the Staging Area, the Emergency Worker Facility, the Reception Centers, and the Monitoring Trailers at the Reception Centers. For all these facilities, one communications link is the NHY ORO Emergency Radio Network, which consists of four paired frequencies. For the Emergency Worker Facility and Monitoring Trailers another communications link is cordless telephone. We could not locate the Legend on Fig. 4.0-1 for cordless telephones. For the Staging Area and Reception Centers, commercial telephone is another communications link. For the Congregate Care Centers, commercial telephone is the only communications link specified.

From the Figure showing the layout of the Staging Area (Figure 5.2-4), it has 20 commercial telephones, an Emergency Medical Service (EMS) radio, and four ORO Emergency radios. Special Vehicle Dispatchers, Evacuation Support Dispatchers, Local EOC Liaisons, Special Population Liaisons, and School Liaisons share telephones (two per extension). However, Appendix H (p. H-77) indicates that the Special Population and School Liaisons each have their own telephones. We note that Local EOC Liaisons are provided cellular telephones. The figures showing the layout of the Monitoring Trailers (Figure 5.2-9) and the Emergency Worker Facility (Figure 5.2-10) do not show any communications equipment in these trailers. From the

figures showing the layout of the Reception Centers (Figures 5.2-6 and 5.2-8), there are at least two telephones and two NHY ORO Emergency radio frequencies at each Reception Center. One telephone is for the Reception Center Leader; the other communications equipment are manned by Reception Center Staff.

Plan Reference

F.1.d. Section 4; Figure 4.0-1; Figure 5.2-2; Figure 5.2-4, Figure 5.2-6, Figure 5.2-8; Figure 5.2-9; Figure 5.2-10; and Appendix H.

Evaluation

F.1.d. Adequate.

We recommend that Figures 5.2-9 and 5.2-10 be revised to reflect the communication systems for the monitoring trailers and EWF indicated on Figure 4.0-1. We recommend that the communication resources and communication systems be reviewed for the Staging Area. Figure 5.2-4 and Appendix H should be revised to be consistent.

NHY has indicated (9/28/88 letter) that it will add cellular and cordless phones to Figure 4.0-1 and that Figures 5.2-9 and 5.2-10 will be revised in the next amendment.

Evaluation Criterion

F.1.e. Provision for alerting or activating emergency personnel in each response organization;

Statement

F.1.e. The NHY Offsite Response EOC Contact Point is responsible for initial receipt and verification of the initial notification from Seabrook Station. Upon activation of the NHY ORO EOC, the NAS Communicator is responsible for receipt and verification of notifications from Seabrook Station. The NAS Communicator is responsible for notification for the NHY ORO response personnel.

NHY ORO will be notified in three stages: Stage 1 at Unusual Event by pager and Melita Emergency Telephone notification System (METS), Stage 2 at Alert by pager and METS, and Stage 3 at Site Area and General Emergency by pager and METS.

In the event the METS is inoperative, there is a backup telephone callout tree notification system.

Plan Reference

F.1.e. Section 3.2; Section 4; IP 2.1; Appendix G; and Appendix H.

Evaluation

F.1.e. Adequate.

Evaluation Criterion

F.2. The offsite response organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists.

Statement

F.2. The Plan states that communications links with hospitals and ambulance companies are commercial telephone and medical radio frequencies. Communications with hospitals and other special facilities are responsibilities of the Special Population Liaisons (stationed at the Staging Area). The Special Population Coordinator (stationed at the NHY ORO EOC) is responsible for contacting ambulance companies, host hospitals, and the backup hospital.

Plan Reference

F.2. Section 4.0; IP 1.10; Appendix C; Appendix H; and Appendix M.

Evaluation

F.2. Adequate.

Evaluation Criterion

F.3. The offsite response organization shall conduct periodic testing of the entire emergency communications system (see evaluation criteria H.10, N.2.a and Appendix 3 of NUREG-0654/FEMA-REP-1, Rev. 1).

Statement

- F.3. The Plan provides for periodic testing of the NHY ORO communications systems and contains testing checklists and logs. Depending on the specific system, tests are performed weekly, monthly, quarterly, or semiannually. These are: METS, EBS Tone Alert Radios, and NAS (weekly); Dimension 2000, NHY Offsite Response Organization Pager System, Siren Control System, and NHY ORO Emergency Communication System (monthly); Centrex Telephone System, telephone operator's console, dedicated ring down circuit, and MAGI (quarterly); and NHY ORO Emergency Communication System (semi-annually).

Plan Reference

- F.3. Section 4; Section 7.4; IP 4.4; and Table 7.4-1.

Evaluation

- F.3. Adequate.

G. Public Education and Information (Planning Standard G):

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions shall be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

Evaluation Criterion

- G.1. The offsite response organization shall provide a coordinated periodic (at least annually) dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This information shall include, but not necessarily be limited to:
- a. educational information on radiation;
 - b. contact for additional information;
 - c. protective measures, e.g., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs;
 - d. special needs of the handicapped; and
 - e. special steps to be taken to describe the role of the offsite response organization vs. the State and local organizations during the emergency.

Means for accomplishing this dissemination may include, but are not necessarily limited to: information in the telephone book; posting in public areas; and publications distributed on an annual basis.

Statement

- G.1. The Plan states that the New Hampshire Yankee Emergency Planning Coordinator is the designated official of the NHY ORO who is responsible for the public information program. This includes the annual review, update, and distribution of public information material to the general population. The public information materials are to be revised prior to the operation of Seabrook Station above five percent power (NHY letter of 9/28/88).

The Plan includes a public information package containing fourteen different items for educating and preparing the public in affected Massachusetts communities for a radiological emergency at Seabrook. The

Emergency Plan Information Calendar does describe the relationship of NHY ORO to Massachusetts State and local officials.

Among these materials are:

- 1988-89 Emergency Plan Information Calendar;
- Decals -- English;
- Decals -- English/French;
- Telephone Book Insert -- Newburyport/Amesbury Area;
- Telephone Book Insert -- Merrimac Area;
- Fold-out Brochure depicting Massachusetts Emergency Plan Information -- English/French
- Special needs survey form;
- Special needs poster or ad;
- Emergency Bus Information Poster -- English/French;
- Massachusetts Emergency Plan Information Poster -- English/French;
- Form letter to hotel/motel/restaurant owners and managers to enclose emergency information for posting;
- Form letter to employers to enclose emergency information for posting;
- Request card for additional materials; and
- Farmers' Brochure.

Plan Reference

- G.1. Section 3.7.1; Section 3.7.2; Section 7.5; and the public education material.

Evaluation

- G.1. Adequate.

See Appendices A and B for the text of FEMA's REP-11 Review and Evaluation of the public information materials specified in the Plan.

Evaluation Criterion

- G.2. The public information program shall provide the permanent and transient adult population within the plume exposure EPZ an adequate opportunity to become aware of the information annually. The programs should include provision for written material that is likely to be available in a residence during an emergency. Updated information shall be disseminated at least annually. Signs or other measures (e.g., decals, posted notices, or other means placed in hotels, motels, gasoline stations and phone booths) shall also be used to disseminate to any transient population within the plume exposure pathway EPZ appropriate information that will be helpful if an emergency or accident occurs. Such notices should refer the transient to the telephone directory or other source of local emergency information and guide the visitor to appropriate radio and television frequencies.

Statement

- G.2. A program for annual distribution of public information materials to residents, transients, and Special Populations is described in the Plan. Mail distribution of calendars to utility bill recipients and telephone book inserts are the major means of educating the residents of the plume exposure EPZ. Farmers and food processors are to be provided the Farmers' Brochure. The transient population is to be provided information by its distribution to various public facilities and through the telephone book inserts. The distribution program is planned to include media advertisements sensitizing the public regarding the importance of the public information material.

The milestone designated for implementation of the public education program is prior to the operation of Seabrook Station above five percent power.

Plan Reference

- G.2. Section 3.7.1; Section 3.7.2; and Section 7.5.1.

Evaluation

- G.2. Inadequate.

The public education program has not been implemented.

Evaluation Criterion

- G.3. The offsite response organization shall designate the points of contact and physical locations for use by news media during an emergency. This should include provisions for accommodating State and local government public information personnel assigned a role under the offsite plan.

Statement

- G.3. NHY ORO has designated the Media Center, located in the Town Hall in Newington, New Hampshire, as the single point of contact between the NHY ORO and the media during a radiological emergency at Seabrook. NHY ORO has made provision for accommodating officials of the Commonwealth of Massachusetts.

NHY ORO has designated the Joint Telephone Information Center (JTIC), located in Newington, New Hampshire, as a location at which media representatives can make telephone inquiries. The Media Relations Assistants at the JTIC have been designated to interface with the media via telephone. There are instructions to call the various wire services when releases are issued. There are references, policy guidance, and provisions to assign personnel to staff telephones and respond to media inquiries.

Plan Reference

- G.3. Section 3.7.3(B) and IP 2.12.

Evaluation

- G.3. Adequate.

Evaluation Criterion

- G.4.a. The offsite response organization shall designate a spokesperson who should have access to all necessary information.

Statement

- G.4.a. The Public Information Advisor, who is assigned to the NHY Offsite Response EOC, is responsible for coordinating and implementing IP 2.12. The Public Information Advisor directs the activities of preparing and issuing news releases for the public and media.

The Public Information Coordinator is responsible for directing the NHY ORO operations at the Media Center. The Public Information Coordinator is responsible for keeping the Public Information Advisor informed of all news media activities and news releases by other organizations at the Media Center. The Public Information Coordinator is the official spokesperson for NHY ORO and participates in media briefings.

We could not determine from IP 2.12 how the NHY Offsite Response EOC and the JTIC receive copies of other organizations' news releases from the Media Center.

The Media Center Administrative Staff are responsible for assisting the Public Information Coordinator at the Media Center.

The Public Information Staff, who are assigned to the NHY Offsite Response EOC, are responsible for obtaining information, developing news releases, and transmitting approved news releases to the Public Information Coordinator, the JTIC, the Seabrook Station Emergency Communications Coordinator, and the Seabrook Station Document Control Center. The Public Information Advisor will receive the Public Information Coordinator's concurrence and then obtain the NHY Offsite Response Director's approval of each release. After obtaining the NHY Offsite Response Director's approval, the Public Information Advisor will instruct the Public Information Staff to disseminate the news release. The NHY ORO will also reissue all EBS messages as news releases.

The Media Relations/Rumor Control Supervisor is responsible for providing supervision and resource support to the Media Relations and Rumor Control Assistants at the JTIC. The Media Relations Assistants are responsible for interfacing with the media via telephone. The Rumor Control Assistants are responsible for receiving and responding to public inquiries about an emergency.

Plan Reference

G.4.a. Section 3.7.3(B) and IP 2.12.

Evaluation

G.4.a. Adequate.

We recommend that IP 2.12 be revised to indicate how the EOC and JTIC receive other organizations' news releases.

NHY has indicated (9/28/88 letter) that IP 2.12 will be revised in the next amendment to indicate how the EOC and JTIC receive other organizations' releases.

Evaluation Criterion

- G.4.b. The offsite response organization shall establish arrangements for timely exchange of information among designated spokespersons.

Statement

- G.4.b. The Plan states that the Public Information Coordinator at the Media Center is to coordinate news releases approved for release by the NHY ORO with the Media Center spokespersons for Seabrook Station, State media representatives, and Federal organizations prior to their release to the media.

Plan Reference

- G.4.b. Section 3.7.3(B); IP 2.12; and Appendix C.

Evaluation

- G.4.b. Adequate.

Evaluation Criterion

- G.4.c. The offsite response organization shall establish coordinated arrangements for dealing with rumors.

Statement

- G.4.c. NHY ORO rumor control activities are to be carried out at the JTIC under the overall supervision of the Public Information Advisor and the direct supervision of the Media Relations/Rumor Control Supervisor. The Public Information Advisor is responsible for coordinating rumor control measures. The process of utilizing the media and ABS to address rumors is specified.

Rumor Control Assistants are responsible for interfacing with the public. They respond to and document telephonic public inquiries, using officially released information, oral information from the Media Relations/Rumor Control Supervisor, or generic information in their position manuals. If a caller's inquiry is not covered by the official information, the Rumor Control Assistants are instructed to refer the call to the Media Relations/Rumor Control Supervisor or to the appropriate State or plant rumor control personnel. In addition, an Assistant who detects a false rumor "trend" is instructed to report it to the Media Relations/Rumor

Control Supervisor, who forwards it up through the chain of command to the Public Information Coordinator so that the media can be asked to help prevent its proliferation.

Plan Reference

G.4.c. Section 3.7.3(C) and IP 2.12.

Evaluation

G.4.c. Adequate.

Evaluation Criterion

G.5. The offsite response organization shall conduct coordinated programs at least annually to acquaint news media with the offsite emergency plans, information concerning radiation, and points of contact (see G.1.e.) for release of public information in an emergency.

Statement

G.5. The Plan states that the NHY Massachusetts Emergency Planning Coordinator will coordinate an annual media information program. The media information program will include Plan updates and media contacts at the Media Center. The media program will be carried out in conjunction with the Seabrook Station and the State of New Hampshire.

Plan Reference

G.5. Section 7.5.2 and Appendix C.

Evaluation

G.5. Adequate.

H. Emergency Facilities and Equipment (Planning Standard H):

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Evaluation Criterion

- H.3. The offsite response organization shall establish an emergency operations center for use in directing and controlling offsite response functions.

Statement

- H.3. The NHY ORO EOC is co-located with the Seabrook Station EOF and the State of New Hampshire IFO on Gosling Road in Newington, New Hampshire at the Newington Station Unit No. 1 facility. This facility is located approximately 15 miles north of the Seabrook Station.

Plan Reference

- H.3. Section 5.2.1; Figure 5.2-1; and Figure 5.2-2.

Evaluation

- H.3. Adequate.

Evaluation Criterion

- H.4. The offsite response organization shall provide for timely activation and staffing of the facilities and centers described in the offsite plan.

Statement

- H.4. NHY ORO will activate the EOC upon the declaration of an Alert or higher ECL. Upon the declaration of an Alert or higher ECL, the NHY ORO EOC will be activated (IP 3.1). The NHY Offsite Response Director will declare the NHY ORO EOC operational when the following group leaders/advisors inform him that they have determined that sufficient staffing exists for them to perform their functions: Radiological Health Officer, Public Notification Coordinator, Public Information Advisor, and the two Assistant Offsite Response Directors. The Support Services Coordinator is responsible for ensuring that the staff set up the NHY ORO EOC in accordance with Attachment 2 of IP 3.1. Various functional groups are

assigned to set up telephones; set out sets of plans and procedures; prearrange office supplies; and ensure that photocopier is operational. The Support Services Coordinator will ensure that sufficient resources (desks, chairs, etc.) exist and procure any additional equipment as necessary. The Support Service Coordinator will provide support to responding organizations and Federal agencies including vehicles, food and lodging, and procurement support. The Security Officer is responsible for establishing access control at the NHY ORO EOC, establishing a log of all personnel admitted to the NHY ORO EOC, and maintaining security for the facility.

The Staging Area (located at 145 Water Street in Haverhill, Massachusetts) is also to be activated at an Alert or higher classification. Emergency field workers are to be activated at the Site Area Emergency or higher. The Emergency Worker Facility (mobile trailer for monitoring and decontaminating emergency workers and vehicles) is to be set up at the Staging Area at an Alert and is to be fully activated at the Site Area Emergency.

A dedicated Monitoring Trailer (to monitor and decontaminate evacuees) is to be set up at each Reception Center and be fully activated at the declaration of a Site Area Emergency.

Two Reception Centers, to provide an assembly point and location for registering evacuees, will be established at locations about 20 miles from the Seabrook Station (one at 1101 Turnpike Street in North Andover, Massachusetts, and the second one at 44 River Street in Beverly, Massachusetts). The Reception Centers are to be activated at a Site Area Emergency classification and higher.

Congregate Care Centers will be established at leased facilities, for which Letters of Agreement have been signed. These Centers are to be set up and staffed by the American Red Cross. The Congregate Care Centers will be activated at the General Emergency ECL.

Plan Reference

H.4. Section 3.6; Section 5; IP 3.1; IP 3.2; IP 3.3; IP 3.4; IP 3.5; and Appendix C.

Evaluation

H.4. Adequate.

Evaluation Criterion

- H.7. The offsite response organization, where appropriate, shall provide for offsite radiological monitoring equipment in the vicinity of the nuclear facility.

Statement

- H.7. NHY ORO has made provision for offsite radiological monitoring equipment for both environmental monitoring and for personnel exposure monitoring.

Plan Reference

- H.7. Section 3.3.2; Table 3.3-1; Section 5.2.4; and Appendix I.

Evaluation

- H.7. Adequate.

Evaluation Criterion

- H.10. The offsite response organization shall make provisions to inspect, inventory and operationally check emergency equipment/instruments at least once each calendar quarter and after each use. There shall be sufficient reserves of instruments/equipment to replace those which are removed from emergency kits for calibration or repair. Calibration of equipment shall be at intervals recommended by the supplier of the equipment.

Statement

- H.10. NHY ORO has made provision to inspect, inventory, and operationally check all emergency equipment quarterly and after each use. Radiological monitoring equipment and dosimetry is to be calibrated on a semiannual basis. Calibration of monitoring instruments will be done: (1) upon receipt of new instruments, (2) after any repair, (3) in accordance with National Standards or the manufacturer's recommendations, and (4) in accordance with Seabrook Station policies. Operational checks on radiological monitoring equipment will be conducted monthly. NHY ORO has stated that they will make sufficient reserves of equipment available to replace equipment that is removed for calibration or repair. The Plan states that equipment can only be removed for repair and calibration when replacements are available.

Plan Reference

H.10. Section 5.5; Section 7.3; and IP 4.3.

Evaluation

H.10. Adequate.

Evaluation Criterion

H.11. The offsite plan shall, in an appendix, include identification of emergency kits by general category (protective equipment, communications equipment, radiological monitoring equipment and emergency supplies).

Statement

H.11. The Plan does not contain lists of emergency kits according to the general categories specified in this criterion. The Plan lists facility equipment alphabetically with separate columns for quantities of a given piece of equipment or supply located at a particular NHY ORO facility. A separate list alphabetically tabulates supplies found in the field team kits (separate columns for field monitoring kits, environmental sampling kits, and environmental supply locker).

Plan Reference

H.11. Appendix I.

Evaluation

H.11. Adequate.

We recommend that the format of the inventory lists be revised.

NHY has indicated (9/28/88) that the format and content of the inventory lists will be reviewed and revised, as necessary, for the 1989 annual update.

Evaluation Criterion

H.12. The offsite response organization shall establish a central point (preferably associated with the licensee's near-site Emergency Operations Facility), for the receipt and analysis of all field monitoring data and coordination of sample media.

Statement

H.12. The NHY ORO has established the EOF as the central point for the receipt and analysis of all field monitoring data and coordination of sample media.

Plan Reference

H.12. Section 3.3.2.

Evaluation

H.12. Adequate.

I. Accident Assessment (Planning Standard I):

Adequate methods, systems and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Evaluation Criterion

- 1.7. The offsite response organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone which are an intrinsic part of the concept of operations for the facility.

Statement

- 1.7. The NHY ORO capabilities and resources for field monitoring within the plume exposure EPZ are described in the plan and its accompanying procedures. The Field Teams (2 teams at 2 persons per team) and Sample Collection Teams (5 teams at 2 persons per team) report to the Field Team Dispatcher. The Field Team Dispatcher and the Dose Assessment Technician report to the Accident Assessment Coordinator. The Accident Assessment Coordinator reports to the Radiological Health Advisor. The typical field monitoring kit inventory is listed in Table 3.3-1. The plan indicates that each field monitoring team will be assigned a vehicle for transportation in the field. The field teams will use the same grid maps as used by the State of New Hampshire and Seabrook Station. The field team monitoring kits contain instruments which are comparable to the survey instruments used by the State of New Hampshire and Seabrook Station.

NHY ORO, Seabrook Station, and the State of New Hampshire have agreed to coordinate field monitoring activities. Therefore, the various organizations' field teams will receive specific assignments. The field survey data collected by the NHY ORO monitoring teams will be integrated with the data collected by the New Hampshire State and Seabrook Station teams.

Plan Reference

- 1.7. Section 3.3-2; Section 3.3-3; Section 3.9; Figure 2.1-1; Table 3.3-1; IP 1.12; IP 2.3; and IP 2.4.

Evaluation

- 1.7. Adequate.

Evaluation Criterion

- I.8. The offsite response organization, where appropriate, shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment and estimated deployment times.

Statement

- I.8. The NHY ORO has made provision and developed methods, equipment, and expertise to make assessments of the magnitude and locations of radiological hazards through the gaseous release pathway. This includes activation, notification means, field team formation, transportation, communications, monitoring equipment, and estimates of deployment times from the arrival at the Staging Area. Estimates of complete deployment time are included.

IP. 2.3 describes duties, responsibilities, and the concept of operation for the Accident Assessment Coordinator, the Field Team Dispatcher, and the Field Monitoring Teams. The Accident Assessment Coordinator is responsible for implementing the procedure and supervising the Field Team Dispatcher. The Field Team Dispatcher is responsible for directing the Field Monitoring Teams including monitoring locations, recording field data, tracking Field Monitoring Team exposure, and relaying this data to the Accident Assessment Coordinator. The Field Monitoring Teams are responsible for performing monitoring surveys in the plume exposure EPZ, collecting samples, and monitoring/reporting their doses.

The Field Monitoring Teams are responsible for plume definition: e.g., define plume boundary as 1 mR/hr, 100 mR/hr, and highest centerline numbers. Note, the NHY ORO has adopted a turnback number of 500 mR/hr. The Field Monitoring Teams are responsible for taking gamma and gamma/beta surveys at waist level, and gamma/beta surveys at two inches above ground at each survey location. The Field Monitoring Teams will be assigned to take air samples at various locations by the Field Team Dispatcher. The Field Team Dispatcher will give assignments to the Field Monitoring Teams. The assignments will be to proceed between various locations, taking appropriate measurements, rather than to be assigned to a general area: i.e., management strategy is point-to-point monitoring. The Field Monitoring Teams kits have a map with a grid system for the plume exposure EPZ.

Plan Reference

- I.8. Section 3.3.2; Section 3.9; Section 4.5; Table 3.3-1; Table 3.3-2; Appendix I; IP 1.2; IP 1.12; IP 2.1; IP 2.3; and IP 3.4.

Evaluation

- I.8. Adequate.

Evaluation Criterion

- I.9. The offsite response organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10^{-7} $\mu\text{Ci/cc}$ (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.

Statement

- I.9. NHY ORO has made provision for equipment and methods to detect and measure radioiodine concentrations as low as 10^{-7} $\mu\text{Ci/cc}$. The typical field monitoring kit inventory (Table 3.3-1) and the field monitoring kit inventory and operational checklist (IP 2.3) shows air sampling equipment and includes 25 silver zeolite cartridges.

The Table 3.3-1 checklist and the IP 2.3 checklist should be consistent with respect to quantity of supplies; e.g., suggest using 30 silver zeolite cartridges for both checklists.

Plan Reference

- I.9. Section 3.3.2; Table 3.3-1; IP 2.2; IP 2.3; and Appendix I.

Evaluation

- I.9. Adequate.

We recommend that Table 3.3-1 and the IP 2.3 checklist be revised to be consistent.

NHY has indicated (9/28/88) that Table 3.3-1 and the IP 2.3 checklists for field test kit inventory will be revised in the next amendment to be consistent.

Evaluation Criterion

10. The offsite response organization shall establish means for relating the various measured parameters (e.g., contamination levels, water and air activity levels) to dose rates for key isotopes (i.e., those given in Table 3, page 18 of NUREG-0654/FEMA-REP-1, Rev. 1) and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures.

Statement

- I.10. IP. 2.2. describes duties for the Accident Assessment Coordinator and the Dose Assessment Technician. The procedure describes the methodologies used for predicting offsite doses (whole body and thyroid), for calculating projected iodine ground deposition, and for projecting first-year integrated whole body dose from radioactive deposition.

Section 3.3 of the Plan states that the Dose Assessment Technician is to use the METPAC data provided by NHY staff at the EOF. The type of information that can be obtained from the METPAC printout includes plume arrival time for downwind distances up to 10 miles, whole-body and thyroid dose rate projections, atmospheric dispersion and plume depletion factors, and whole body and thyroid integrated doses for 2, 4, 6, or 8 hours of exposure. The Dose Assessment Technician should have a time dependent dose conversion factor to use in developing the projected thyroid dose rate calculations.

IP 2.5 provides guidance for making PARs. The PAR procedure calls for predetermined special PAs at a Site Area Emergency or General Emergency. The predetermined special PAs are:

- Consider recommending early evacuation of schools; and
- Closure of the Parker River National Wildlife Refuge on Plum Island, Plum Island Beach, Salisbury Beach, and the ocean safety zone.

The Radiological Health Advisor is responsible for implementing this procedure. The Accident Assessment Coordinator is responsible for collecting and summarizing radiological and meteorological information. The Technical Advisor is responsible for collecting and summarizing data on the accident status and plant conditions, and providing this information to the Radiological Health Advisor for formulating a PAR. The Radiological Health Advisor checklist (IP 1.2) states that the Radiological Health Advisor is responsible for formulating precautionary PARs and PARs for both the plume and ingestion exposure pathways. The PAR

procedure indicates that the Technical Advisor will confer with the Radiological Health Advisor in developing a PAR (IP 2.5, sections 5.2.2, 5.4.1, and 5.4.3). The Technical Advisor checklist (IP 1.7) states that the Technical Advisor will develop PARs based upon plant status and advise the Radiological Health Advisor of the need for PARs based on plant conditions.

The Radiological Health Advisor checklist has a briefing sheet (Attachment 3 to IP 1.2) for the Radiological Health Advisor to complete and deliver to the NHY Offsite Response Director. This form has combinations of no action, shelter, evacuation, and recovery for each of the ERPAs within the plume exposure EPZ. This form also contains an ingestion PAR and a section for recommending emergency worker exposure controls.

See J.11 for discussion of dose projections for the ingestion pathway.

Plan Reference

- I.10. Section 3.2; Section 3.3; Section 3.9; IP 1.2; IP 1.7; IP 1.12; IP 2.2; IP 2.5; and IP 2.6.

Evaluation

- I.10. Adequate.

We recommend that a time dependent dose conversion factor should be used in thyroid exposure rate calculation.

Evaluation Criterion

- I.11. Arrangements to locate and track the airborne radioactive plume shall be made, using either or both Federal and offsite response organization resources.

Statement

- I.11. NHY ORO will provide two field monitoring teams with vehicles for ground transportation. These teams, along with those of New Hampshire State and Seabrook Station, can be used for locating and tracking an airborne radioactive plume from the ground. The Plan indicates that NHY ORO will request Federal assistance to perform aerial monitoring.

Plan Reference

I.11. Section 2.3.2; Section 2.3.3; Section 3.3.2; IP 1.12; and IP 2.3.

Evaluation

I.11. Adequate.

J. Protective Response (Planning Standard J):

A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Evaluation Criterion

- J.2. Each licensee and offsite response organization shall make provisions for evacuation routes and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement weather, high traffic density and specific radiological conditions.

Statement

- J.2. Evacuation of onsite personnel is incorporated into the Seabrook Station Evacuation Time Estimate and Traffic Management Plan Update. The Seabrook Station is located in the State of New Hampshire. The onsite plan calls for personnel to be evacuated to the State of New Hampshire.

Plan Reference

- J.2. Evacuation Time Estimate study.

Evaluation

- J.2. Not Applicable.

Evaluation Criterion

- J.9. The offsite response organization shall establish a capability for implementing protective measures based upon protective action guides and other criteria. The offsite response organization shall describe the means for recommending protective actions to the public, for activating the alert and notification system, and for notifying the public of protective action recommendations. This shall be consistent with the recommendations of EPA regarding exposure resulting from passage of radioactive airborne plumes, (EPA-520/1-75-001) and with those of DHHS/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register on October 22, 1982 (47 FR 47073).

Statement

- J.9. The Plan describes the Massachusetts communities affected by the Seabrook Station plume exposure EPZ as follows:

The land area is completely within Essex County, Commonwealth of Massachusetts. All land area is said to be under the jurisdiction of the following communities: Amesbury, Merrimac, Newbury, Newburyport, Salisbury, and West Newbury. A portion of Plum Island is under the jurisdiction of the DOI. The navigable waters of the Atlantic Ocean and the Merrimac River are under the jurisdiction of the USCG. The FAA maintains jurisdiction over the airspace within the plume exposure EPZ. Note: Portions of Plum Island outside of Newburyport (Rowley and Ipswich) are not included in plume exposure EPZ.

The general public population is stated to be as follows:

COMMUNITY	PERMANENT	PERMANENT & TRANSIENT
Amesbury	14,258	19,359
Merrimac	4,420	6,079
Newbury	5,479	10,476
Newburyport	16,414	23,481
Salisbury	6,726	18,919
West Newbury	3,296	4,630
TOTAL POPULATION	50,593	82,944

Portions of Salisbury and Amesbury are located within the two mile and five mile distance from the Seabrook Station in the S to the WSW compass sectors. Portions of Salisbury and Amesbury and all/most of Merrimac, West Newbury, Newburyport, and Newbury are located between the five and ten mile distance from the Seabrook Station in the S to the WSW compass sectors.

The transient population mainly visits Salisbury Beach and beaches on Plum Island, which are located in Salisbury, Newbury, and Newburyport, as well as the Parker River National Wildlife Refuge, which is located in Newburyport, Rowley, and Ipswich.

The Seabrook Station Ingestion Exposure EPZ affects portions of the States of Maine and New Hampshire and portions of the Commonwealth of Massachusetts. The Plan identifies all or portions of the following Massachusetts Counties as being part of the Ingestion Exposure EPZ: Essex, Middlesex, Suffolk, Plymouth, Norfolk, and Worcester.

NHY ORO has adopted the concept of operation for Protective Action in the Plume Exposure EPZ as follows:

- SAE and GE ECL: Recommend that the DOI notify the transients at the Parker River National Wildlife Refuge to leave. Recommend that the USCG establish a marine safety zone (ocean safety zone). Recommend that Plum Island Beach and Salisbury Beach be closed. Consider recommending early evacuation of schools or closing of schools if they are not open.
- GE ECL: Recommend combinations of shelter and evacuation, depending upon assessment of emergency, for the general public and Special Populations. Recommendations will be by ERPA. A recommendation will be made to place milk animals within 10 miles in shelter and on stored feed.

NHY ORO has adopted the concept of operation for PAs in the Ingestion Exposure EPZ as follows:

- PREVENTIVE PROTECTIVE ACTIONS: Recommend PAs if measured contamination of food stuffs exceeds the preventive derived response levels.
- EMERGENCY PROTECTIVE ACTIONS: Recommend PAs if the measured contamination of foodstuffs exceeds the emergency derived response levels.

NHY ORO has adopted the concept of operation for PAs for the Reentry and Recovery period as follows: recommend the designation of restricted zones, relocation of the general public, and decontamination campaigns. NHY ORO will base the Reentry and Recovery Protective Actions on the measurement of contamination that would result in the projected whole body dose exceeding the various relocation PAGs.

NHY ORO has established the capabilities for effecting the evacuation of the general public and Special Populations. NHY ORO has designated staff, equipment, and resources to effect evacuation and to establish access control points (ACPs) for evacuated areas. NHY ORO will provide dosimetry and KI to those Special Populations who cannot evacuate.

NHY ORO will assist the Commonwealth of Massachusetts in the implementation of Ingestion Exposure Pathway PAs. The NHY Offsite Response Director has authority to purchase foodstuffs with contamination levels exceeding the emergency derived response levels.

NHY ORO has made arrangements to notify the Commonwealth of Massachusetts and the various local governments. NHY ORO has made arrangements to notify the public through the use of EBS. NHY ORO has

made arrangements to notify Special Populations (public and private schools, day care centers, nursing homes, hospitals, medical facilities, other special facilities, and hearing-impaired individuals). NHY ORO has made arrangements to notify the USCG, the FAA, and the DOL.

The Plan describes a Vehicular Alert and Notification System that would be utilized to alert the public. We note that the Vehicular Alert and Notification System is not available for use.

NHY ORO has adopted the EPA PAGs for the general public and emergency workers in the plume exposure EPZ. NHY ORO has adopted the FDA PAGs for foodstuffs in the ingestion exposure EPZ. The NHY ORO PAGs are consistent with those of the Commonwealth of Massachusetts and the State of New Hampshire. NHY ORO has adopted the draft EPA PAGs for relocation.

Plan Reference

- J.9. Section 3.3; Section 3.4; Section 3.5; Section 3.6; Section 3.7; Section 3.8; Section 3.9; and IP 2.16.

Evaluation

- J.9. Adequate.

Evaluation Criterion

- J.10. The offsite response organization's plans to implement protective measures for the plume exposure pathway shall include:
- J.10.a. Maps showing evacuation routes, evacuation areas, preselected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas (identification of radiological sampling and monitoring points shall include the designations in Table J-1 of NUREG-0654/FEMA-REP-1, Rev. 1 or an equivalent uniform system described in the offsite plan);

Statement

- J.10.a. A map titled "Plume Exposure EPZ" (Appendix A) shows evacuation areas and shelter areas (locations of the host facility and congregate care centers) for the six towns. Expanded maps of each town in Appendix J show evacuation routes, with traffic control points marked.

A map of preselected radiological sampling and monitoring points was not found. A comparable grid system and appropriate maps have been established. This grid system has been adopted by the States of New Hampshire and Maine, as well as the onsite organization.

Plan Reference

J.10.a. Appendix A and Appendix J.

Evaluation

J.10.a. Adequate.

Evaluation Criterion

J.10.b. Maps showing population distribution around the nuclear facility. This shall be by evacuation areas (licensees shall also present the information in a sector format);

Statement

J.10.b. Population distribution around Seabrook Station is shown in tabular (rather than map) form for the six towns in the plume exposure EPZ in Table 1.3-1 and Table 3.6-1. Tables 1.3-1 and 3.6-1 gives figures for "permanent residents" and "peak population total," defined as summer, midweek data. These figures are derived from the Seabrook Station Evacuation Time Study.

Plan Reference

J.10.b. Table 1.3-1; Table 3.6-1; and ETE (Section 2 and Section 10).

Evaluation

J.10.b. Adequate.

We recommend that population distribution data be provided in map form.

NHY has indicated (9/28/88 letter) that population distribution data in a map form by ERPA will be provided in the next amendment.

Evaluation Criterion

J.10.c. Means for notifying all segments of the transient and resident population.

Statement

J.10.c. See comments under E.4.

Plan Reference

J.10.c. Section 3.2.5; Section 3.7.3; IP 2.13; IP 2.15; and IP 2.16.

Evaluation

J.10.c. Inadequate.

The Vehicular Alert and Notification System (VANS) is not operational at this time.

Evaluation Criterion

J.10.d. Means for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement. These means shall include notification, support and assistance in implementing protective measures where appropriate;

Statement

J.10.d. IP 2.7 provides guidance for notifying the Special Populations of recommended PAs and assessing transportation requirements. The Special Populations are defined as school children living and attending school in the plume exposure EPZ, school children living in the plume exposure EPZ and attending school outside the plume exposure EPZ, medically homebound individuals, hearing-impaired individuals, individuals in hospitals, and persons in other special care facilities.

The Evacuation Support Coordinator is responsible for directing the functions of the School Coordinator and Special Population Coordinators. The School Coordinator is responsible for directing the School Liaison and referring transportation requirements to the Bus Company Liaison. Each School Liaison is responsible for notifying schools in the designated communities, relaying PARs to the schools, and informing the School Coordinator of transportation needs and the status of PA implementation. School Liaisons are also responsible for

notifying schools outside the plume exposure EPZ that are attended by students living in the plume exposure EPZ. The Special Population Coordinator is responsible for directing the activities of the Special Population Liaisons, ensuring notifications of the hearing-impaired are made, referring bus requirements to the Bus Company Liaison, and obtaining special vehicles (ambulances/wheelchair vans).

The Special Vehicle Dispatchers are responsible for dispatching ambulance/van drivers to various special facilities. The Dosimetry Recordkeepers will provide dosimetry to the Special Vehicle drivers. Appendix M indicates that there are needs for 107 wheelchair vans and ambulances and 57 buses to evacuate 2,638 persons plus staff who are either in special facilities and hospitals or who have mobility impairments.

The Plan states that NHY ORO has the means for conducting simultaneous evacuation of all schools within the Massachusetts plume exposure EPZ. NHY ORO bus drivers will be briefed, issued dosimetry, and dispatched to appropriate schools. The NHY ORO does not rely on the school buses routinely used by the school district. The plan makes provision to provide the means to communicate with the buses by issuing radios to the Route Guides, who will be assigned to the lead bus dispatched to each school.

Attachment 1 of IP 2.7 is used by the School Liaison to notify schools, and to inform them of PARs. The attachment contains the PAR "nonopening/cancellation" of school sessions and school related activities. Section 5.2.2 of IP 2.7 states that the School Coordinator requests buses from the Bus Company Liaison. The School Coordinator receives the bus needs from the six School Liaisons. Provision has been made for buses, vans, and ambulances to evacuate these individuals, for monitoring and decontamination, and for a host facility and congregate care facilities. Appendix M indicates that there are needs for 245 buses to evacuate 10,371 persons from schools.

Special Population Liaisons are assigned to make notifications to the noninstitutionalized special populations, including the hearing-impaired, and to special facilities other than schools. Route Guides at the Staging Area are to be available after declaration of a SAE for dispatch to the homes of the hearing-impaired to inform them of the need to take protective actions. Lists of persons with special needs are to be maintained via mail-in cards, posters, phone inquiries, and personal visits. These and other lists of special facilities are to be maintained in Appendix M.

Maps to direct those assigned to evacuate special populations have been developed. Provisions have been made to store the maps at the Staging Area and to provide the maps to Route Guides.

Plan Reference

J.10.d. Section 3.6; IP 1.9; IP 1.10; IP 2.7; IP 2.10; IP 2.11; and Appendix M.

Evaluation

J.10.d. Adequate.

Evaluation Criterion

J.10.e. Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult, including quantities, storage, and means of distribution;

Statement

J.10.e. KI tablets are to be issued along with dosimetry to emergency personnel who must enter the plume exposure EPZ. Dosimetry Recordkeepers are to deliver a set of dosimetry and KI to each bus driver at their respective bus yards. All other emergency workers at the Staging Area are to receive both dosimetry and KI.

The NHY ORO will provide dosimetry and KI for institutionalized individuals who cannot be evacuated if requested by local emergency officials.

Dosimetry Recordkeepers are to deliver 50 sets of dosimetry with KI to each local EOC, if requested to do so.

Plan Reference

J.10.e. Section 3.5.4; Section 3.6.1; IP 2.8; and Appendix I.

Evaluation

J.10.e. Adequate.

Evaluation Criterion

J.10.f. The offsite response organization's plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population can be made during an

emergency. The plan shall adopt the method used by the State where such a method is available. The plans shall provide for advising State Health Departments regarding such decisions; and the predetermined condition under which such drugs may be used by offsite emergency workers;¹

Statement

J.10.f. NHY ORO has not made provisions for the distribution of KI to the general public, which is consistent with the Commonwealth of Massachusetts Radiological Emergency Response Plan. The predetermined condition level for KI use by emergency workers is stated to be 25 rem.

All NHY ORO emergency personnel who must enter the plume EPZ will be given KI tablets along with dosimetry. The Radiological Health Advisor will use the evaluation of projected thyroid exposures in the decision to authorize the ingestion of KI by NHY ORO emergency personnel.

Plan Reference

J.10.f. Section 3.5.4 and IP 2.8.

Evaluation

J.10.f. Adequate.

Evaluation Criterion

J.10.g. Means of relocation;

Statement

J.10.g. The plan (Section 3.6.1) describes means for relocation of the general public (via automobile), residents and transients requiring assistance (automobile or bus), Special Population/special facilities (bus, ambulance, or van), and schools (buses). The numbers of buses, ambulances, and vans required are tabulated in Appendix M. See comments under J.10.d.

IP 1.3, 1.9, 1.10, 2.10, and 2.11 provide guidance and control for implementing evacuation protective actions.

¹See DHHS Federal Register notice of July 24, 1985 (50 FR 30258) entitled Federal Policy on Distribution of Potassium Iodide Around Nuclear Power Sites for Use as a Thyroid Blocking Agent.

The Staging Area Leader is responsible for briefing personnel dispatched to bus yards. The Bus Company Liaison is responsible for obtaining buses to support the evacuation of general and Special Populations. The Bus Company Dispatchers are responsible for taking Bus Driver Packets to bus yards, briefing bus drivers, and overseeing the dispatch of buses. The Bus Company Dispatcher is to take Dosimetry Record Keepers to the assigned bus yards. The Route Guide procedure (Attachment 3, IP 2.10) states that the Route Guides will report to the assigned bus yard with the Bus Company Dispatcher. The Special Vehicle Dispatcher is responsible for briefing ambulance/van drivers, assigning pickup points, and dispatching them from the Staging Area. Transfer Point Dispatchers are responsible for assigning bus routes, assigning dosimetry to road crews, dispatching/briefing Route Guides and bus drivers who are assigned to Transfer Points.

The Bus Company Liaison is tasked to determine the availability of buses, and the mobilization time. This information is to be recorded on Attachment 1 of IP 2.10. This form provides for an indication of the availability of equipment and the identified bus requirements by community for transit dependent, special facilities, and schools. When there are more bus companies and/or bus yards than Bus Dispatchers, IP 2.10 directs the Bus Company Liaison either to request buses from smaller bus companies to go to designated bus yards for dispatch, or to request NHY ORO to provide additional Bus Dispatchers. The Bus Company Liaison must interface with the Special Population Coordinator and the School Coordinator in order to determine the actual number of buses required for these groups of Special Populations by community.

The Route Guide procedure (Attachment 2, IP 2.10) calls for the Route Guides to check out radios in order to provide communications capabilities for the buses. The staffing chart (Figure 2.1-1) indicates that 166 persons are assigned duties as Route Guides. These 166 Route Guides have to provide evacuation assistance to the general public, schools and special facilities simultaneously. The Route Guides also are assigned the responsibility to notify the hearing-impaired individuals.

The Transfer Point Dispatchers will pick up radios and proceed to their predetermined Transfer Point. The Transfer Point Dispatchers are also to pick up enough radios to provide radios to the Road Crews.

Transfer Point Dispatchers will brief bus drivers and Route Guides as they arrive at the transfer points. Bus drivers, Route Guides, and buses will be assigned to specific routes. Appendix M indicates that 64 buses will be assigned to the Transfer Point Dispatchers to effect transportation assistance/evacuation for 1,864 persons identified as transit-dependent.

Plan Reference

J.10.g. IP 1.3; IP 1.9; IP 1.10; IP 2.10; IP 2.11; Section 3.6; Appendix I; Appendix M; and Evacuation Time Estimate study.

Evaluation

J.10.g. Adequate.

Evaluation Criterion

J.10.h. Relocation centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone (see J.12.);

Statement

J.10.h. Two Reception Centers and 27 Congregate Care Centers (some co-located) have been identified (Appendix C). All are at a distance of at least 5 miles, and most greater than 10 miles, beyond the boundaries of the plume exposure EPZ. According to ARC Form #3074, completed by NHY personnel for each Congregate Care Center, the Congregate Care Centers have space for 24,714 people. The Reception Centers will be managed by the NHY ORO (Section 5.2.7). The Congregate Care Centers will be managed by the American Red Cross (Section 5.2.8).

Maps directing the public from the Reception Centers to the Congregate Care Centers have been developed. Provisions have been made to store the maps at the Reception Centers and to provide for the distribution of the appropriate maps to evacuees requiring congregate care.

A generic plan for Congregate Care Center setup has been developed.

Plan Reference

J.10.h. Section 3.6; Section 5.2.7; Section 5.2.8; IP 1.6; and IP 3.5.

Evaluation

J.10.h. Adequate.

Evaluation Criterion

- J.10.i. Projected traffic capacities of evacuation routes under emergency conditions;

Statement

- J.10.i. The Seabrook Station Evacuation Time Study describes the method used to estimate traffic capacities of evacuation routes (ETE, Section 3) and lists the estimated values of capacity for each route segment under fair weather conditions (ETE, Appendix N). For inclement weather, capacity reductions of 20 percent for rain and 25 percent for snow are used (ETE, p. 3-11).

Plan Reference

- J.10.i. Evacuation Time Estimate study.

Evaluation

- J.10.i. Adequate.

Evaluation Criterion

- J.10.j. Control of access to evacuated areas and organization responsibilities for such control;

Statement

- J.10.j. The following statements are based on our review of the Plan, IP 2.11, Appendix J of the Plan, and the ETE.

NHY ORO will establish Traffic Control Points (TCPs) and Access Control Points (ACPs) (Section 3.6.5). Detailed sketches of each TCP and ACP are included in the plan (Appendix J, Traffic Management Manual).

The listed ACPs are all on the periphery of the EPZ. Specific internal TCPs are designated as internal ACPs.

Plan Reference

- J.10.j. Section 3.6.5; IP 2.11; Appendix I; Appendix J; and ETE study.

Evaluation

J.10.j. Adequate.

Evaluation Criterion

J.10.k. Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes, and contingency measures:

Statement

J.10.k. NHY ORO will preposition 12 road crews at 6 Transfer Points to clear road impediments and ensure that roads remain passable (Section 3.6.5). Traffic guides will be stationed at predetermined TCPs to expedite the flow of traffic. If alternative evacuation routes become necessary, Traffic Guides will be repositioned by the Evacuation Support Dispatcher (Section 3.6.5, IP 1.3, IP 2.10, and Appendix J).

See statement under J.10.l.

Appendix M lists three companies with a total inventory of 24 towing vehicles.

Plan Reference

J.10.k. Section 3.6.5; IP 1.3; IP 2.10; Appendix J; and Appendix M.

Evaluation

J.10.k. Adequate.

Evaluation Criterion

J.10.l. Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (see Appendix 4, NUREG-0654/FEMA-REP-1, Rev. 1); and

Statement

- J.10.l. An evacuation time study was performed for the entire plume exposure EPZ, including the six Massachusetts communities, Seabrook Station Evacuation Time Estimate Study (ETE).

In the ETE, two Emergency Response Planning Areas (ERPAs) were defined to include the six Massachusetts communities: ERPA B, comprising Amesbury and Salisbury; and ERPA E, comprising Merrimac, Newbury, Newburyport, and West Newbury. Evacuation time estimates were calculated for these ERPAs. The overall evacuation time estimates for ERPAs B and E include the evacuation time estimates for the persons at the Massachusetts beaches, for transit-dependent persons, and for special facility populations.

IP 2.10 (Attachment 2) assigns priorities for evacuating special facilities. We could not locate in the Plan the methodology used to assign those priorities. NHY indicated during conversations with FEMA staff that the following methodology was used to assign priorities: schools were prioritized strictly based on distance from Seabrook Station. The hospitals were all considered high priority, both because there are only two, and because of the criticality of their population. The priorities were established on a town-specific basis, whereby each town has several priority levels, from highest (1) to lowest (4). We note that NHY ORO will consider recommending early evacuation of schools or closing of schools if they are not open at both a SAE and GE ECL.

Plan Reference

- J.10.l. Section 3.6; IP 1.3; IP 2.5; IP 2.10; Appendix J; and ETE.

Evaluation

- J.10.l. Adequate.

We recommend that the Plan be revised in the next amendment to state the basis for determining the special facility evacuation priorities.

NHY has indicated (9/28/88 letter) that Section 3.6 will be revised in the 1989 annual update to state the basis for determining the special facility priorities.

Evaluation Criterion

- J.10.m. The basis for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include

expected local protection afforded in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates.²

Statement

J.10.m. The Plan describes a PAR process based on both plant status and dose projections. Field measurements are inputted as they become available in order to refine PARs. The EPA Protective Action Guides (PAGs) are used as a basis for selecting protective actions for the plume exposure pathway. The METPAC program used for dose projection contains shelter protection factors for a wood frame house without a basement, used in both whole-body and thyroid dose calculations (p. 3.3-6).

Plan Reference

J.10.m. Section 3.3; Section 3.4; IP 1,2; IP 1,7; IP 2.5; and Evacuation Time Estimate study.

Evaluation

J.10.m. Adequate.

Evaluation Criterion

J.11. The offsite response organization shall specify the protective measures to be used for the ingestion pathway, including the methods for protecting the public from consumption of contaminated foodstuffs. This shall include criteria for deciding whether dairy animals should be put on stored feed. The offsite plan shall identify procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion,

²The following reports may be considered in determining protection afforded.

- (1) "Public Protection Strategies for Potential Nuclear Reactor Accidents "Sheltering Concepts with Existing Public and Private Structures" (SAND 77-1725), Sandia Laboratory.
- (2) "Examination of Offsite Radiological Emergency Measures for Nuclear Reactor Accidents Involving Core Melt" (SAND 78-0454), Sandia Laboratory.
- (3) "Protective Action Evaluation Part II, Evacuation and Sheltering as Protective Actions Against Nuclear Accidents Involving Gaseous Releases" (EPA 520/1-78-001B). U.S. Environmental Protection Agency.

and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and treatment plants and reservoirs shall be maintained. Provisions for maps showing detailed crop information may be by including reference to their availability and location and a plan for their use. The maps shall start at the facility and include all of the 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be maintained.

Statement

- J.11. NHY ORO has identified procedures for detecting contamination from the quantitative field data collected by Sample Collection Teams and/or Field Monitoring Teams, and from laboratory analysis of the field samples. NHY ORO has procedures for developing Preventive and Emergency PARs. IP 2.6 contains two worksheets for calculating whether protective actions are called for (Attachment 2 for milk and drinking water; Attachment 5 for other foods). IP 2.6 also contains attachments with preventive (#3) and emergency (#4) PAs.

NHY ORO has adopted the concept of operation for PAs in the Ingestion Exposure EPZ as follows:

- **PRECAUTIONARY PROTECTIVE ACTIONS:** Recommend that milk animals in the plume EPZ be placed on stored feed and in shelters at GE ECL.
- **PREVENTIVE PROTECTIVE ACTIONS:** Recommend PAs if the measured contamination of foodstuffs exceeds the preventive derived response levels.
- **EMERGENCY PROTECTIVE ACTIONS:** Recommend PAs if the measured contamination of foodstuffs exceeds the emergency derived response levels.

The Plan in Section 3.4.2 provides for ingestion PARs and PAs to be communicated to the general public and food processors by means of news releases and EBS message. IP 2.6 assigns the Radiological Health Advisor the responsibility to assist in the development of appropriate news releases. After recommending an ingestion exposure pathway PAR, the NHY Offsite Response Director will direct the Public Information Advisor to develop a news release. After authorization from the Commonwealth, the Public Information Advisor will be instructed to issue the news release.

NHY ORO will request that the Massachusetts Department of Food and Agriculture, the USDA, and the FDA implement ingestion exposure pathway PAs. IP 2.6 directs the NHY Offsite Response Director, upon authorization from the Commonwealth, to instruct the Radiological Health Advisor to begin contacting farms and food processors/distributors affected by the PAs. The Plan references the process to provide written public instructions material to be directed at farmers, farm workers, food processors, and distributors within the ingestion exposure EPZ.

The ingestion pathway database (Appendix L) does contain appropriate information for accident assessment and implementation of ingestion pathway PAs. FEMA staff reviewed the material that is being placed in a computerized data base, the format of the data base, and sample outputs of the data base. The reporting formats (outputs) and data base will provide for complete coverage (lists of farms, producers, processors, distributors, etc.) of ingestion pathways within the Massachusetts portion of the Seabrook ingestion exposure EPZ. Provisions have been made for maintaining maps for recording survey and monitoring data, and for maintaining key land use data, dairies (Appendix L), etc. at the NHY ORO EOC.

IP 2.4 establishes guidelines for the Sample Collection Teams (SCT) to follow in the collection of water, snow, milk, vegetation, meats and meat products, eggs, soil, food crops, animal feeds, and shellfish. Sample Collection Teams will be directed by the Accident Assessment Coordinator through the Field Team Dispatcher. Figure 2.1-1 indicates that there are 12 persons (6 teams). There are 6 team kits. The Plan (Section 3.3) states that there are 5 Sample Collection Teams. The sixth team will be used to collect samples and transfer them to collection points (EOF).

Sample Collection Teams are directed to take gamma and gamma/beta surveys at waist height at each sample location. Sample Collection Teams are directed to take gamma/beta surveys at two inches above ground at each sample location. The Sample Collection Teams have USGS maps for the ingestion exposure EPZ and maps for the plume exposure EPZ. A grid system is used for both maps.

There are various procedures for the different types of samples. The milk sampling procedure includes the required collection of necessary information on feeding protocol, volumes of milk in tanks from which the sample was taken, and times at which milk was added to the tank relative to the time of the accident. The procedure calls for the Sample Collection Team to complete Attachment 5.

Plan Reference

- J.11. Section 3.3; Section 3.4.2; Section 5.2.1; Figure 2.2-1; IP 2.4; IP 2.6; IP 2.12; IP 2.13; Appendix L; and Appendix H.

Evaluation

J.11. Adequate.

Evaluation Criterion

J.12. The offsite response organization shall describe the means for registering and monitoring of evacuees at relocation centers in host areas. The personnel and equipment available shall be capable of monitoring within about a 12-hour period all residents and transients in the plume exposure EPZ arriving at relocation centers.

Statement

J.12. NHY ORO will use mobile Monitoring Trailers at each Reception Center. All arriving persons must process through the Monitoring Trailer. Each Monitoring Trailer has 14 monitoring stations. The plan indicates that additional monitoring capability is available to NHY ORO from Yankee Atomic Electric Company, other New England utilities, and Federal resources.

There are procedures for decontamination of evacuees in the plan. The layout of the Monitoring Trailers shows that each Monitoring Trailer has a decontamination area with a double sink and two decontamination showers.

A Monitoring Team is assigned to each of the two Reception Centers. Each team has 30 persons per shift. Each Monitoring Team reports to a team leader. The Monitoring Team Leaders report to the Radiological Health Advisor.

IP 2.9 calls for the use of the FT126B instrument for initial monitoring and the HP210 instrument for monitoring after decontamination. The contamination level for personnel and equipment is 200 cpm above background. The NHY ORO has made provisions to deal with contaminated clothing, personal articles, and wastewater. The Plan states that the NHY ORO monitoring productivity is 16,600 persons in 12 hours (both Reception Centers).

A radiological screening program is established to determine whether contaminated persons need further medical evaluation. Persons enter the program who cannot be decontaminated below acceptable limits, or if he or she has external contamination greater than 2,000 cpm above background (ten times the contamination trigger level, which is 200 cpm above background). The Radiological Health Advisor is responsible for all following actions (e.g., bioassays or whole body counts).

The Reception Center Coordinator/Assistant Reception Center Coordinator are responsible for activating and operating the two Reception Centers, reuniting evacuees with their families, tracking the number of evacuees reporting to each center and directing evacuees to appropriate Congregate Care Centers operated by the American Red Cross (ARC).

The Reception Center Coordinator will notify the ARC and Congregate Care Centers at Alert. They will inform the ARC and Congregate Care Center of the emergency status and assess availability of staff and facilities. The Reception Centers will be activated at SAE. The Congregate Care Centers will be activated at GE. The Reception Center Coordinator will notify the Public Information Advisor of the locations of the Congregate Care Centers that should be included in the news releases.

The Reception Center Leaders are responsible for the activation, operation, and deactivation of the Reception Centers. Each Reception Center has 1 leader and 17 staff persons per shift. All evacuees must be processed through the monitoring and decontamination process before they can gain access to the reception center via the issuance of a clean tag (Attachment 3 of IP 2.9). The monitoring and decontamination staff do issue the clean tags. There are two security staff assigned to the reception center. The Reception Center Liaison is to assign a staff person to perform a security function at the ingress and egress points to the Reception Center. There are two staff assigned to the function of directing traffic in the parking lots. The Monitoring and Decontamination operation has staff assigned to monitor vehicles.

The evacuees, once they have been issued a clean tag, will proceed to the registration area. The registration form (Attachment 7 of IP 3.5) contains an area for name, resident address, persons living in your home, and the temporary shelter location. The evacuees have the option of completing a message form (Attachment 10 of IP 3.5). The Reception Center staff will complete the message log (Attachment 11 of IP 3.5) and post the log for arriving evacuees to see. When persons request to see the message, after receiving appropriate identification, the staff will deliver the message.

Plan Reference

J.12. Section 3.5.3; Section 5.2.4; Section 5.2.7; IP 1.2; IP 2.9; IP 3.4; and IP 3.5.

Evaluation

J.12. Adequate.

K. Radiological Exposure Control (Planning Standard K):

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Evaluation Criterion

- K.3.a. The offsite response organization shall make provision for 24-hour-per-day capability to determine the doses received by emergency personnel involved in any nuclear accident, including volunteers who are part of the offsite response organization. They shall also make provisions for distribution of dosimeters, both self-reading and permanent record devices.

Statement

- K.3.a. NHY ORO has made provisions to determine doses received by NHY ORO emergency personnel. Provisions have been made for distribution of both direct reading dosimeters and permanent record devices for emergency workers. Emergency Workers are responsible for monitoring and recording their own exposure. There are administrative reporting levels. The reports will be used by the Exposure Control Coordinator to track the exposures received by NHY ORO personnel. There are Dosimetry Recordkeepers assigned to maintain dosimetry records for emergency workers. The Dosimetry Record Keepers report to the Exposure Control Coordinator. The Exposure Control Coordinator reports to the Radiological Health Advisor.

Each emergency worker [as defined in the plan] is to be provided with one thermoluminescent dosimeter and two direct-reading dosimeters (0-200 mR, and 0-20 R), except for monitoring/decontamination personnel assigned to the monitoring trailers and EWF, who are to receive a 0-200 mR dosimeter and a TLD. The TLD will provide the official radiation exposure to be recorded on the emergency worker's permanent record.

The Transfer Point Dispatchers, Traffic Guides, Local EOC Liaisons, Ambulance Drivers, Monitoring/Decontamination Personnel, Field Monitoring Teams, and Sample Collection Teams are to receive dosimetry from Dosimetry Recordkeepers at the Staging Area. Bus Drivers are to receive dosimetry from the Bus Dispatchers who, assisted by Dosimetry Recordkeepers, are to deliver and distribute dosimetry at the bus yards prior to the dispatch of buses. The Local EOC Liaisons and Dosimetry Recordkeepers are to take dosimetry to the local EOCs for distribution to the local emergency workers if needed. Transfer Point Dispatchers are to take dosimetry to the Transfer Points for distribution to the Road Crews and if necessary Snow Removal Crews.

Plan Reference

K.3.a. Section 3.5.2; Section 3.6.5; IP 2.8; and Appendix I.

Evaluation

K.3.a. Adequate.

Evaluation Criterion

K.3.b. The offsite response organization shall ensure that dosimeters are read at appropriate frequencies and provide for maintaining dose records for emergency workers involved in any nuclear accident.

Statement

K.3.b. NHY ORO Emergency Workers have been trained to read the direct-reading dosimeters at frequent intervals while performing their emergency duties. The term "frequent intervals" has been specified in emergency worker training as "approximately every 15 minutes." The TLD will provide the official radiation exposure to be recorded on the emergency worker's permanent record. Dosimetry Recordkeepers will maintain dosimetry records for emergency workers on forms for a shift basis. Emergency personnel are responsible for monitoring and recording their own exposure while in the field, and for notifying their appropriate contact point if exposure reporting levels are reached. The procedures require emergency workers to record their own readings on work sheets. The various forms provided to the EW allow them to log and track their dose.

Plan Reference

K.3.b. Section 3.5.2; and IP 2.8.

Evaluation

K.3.b. Adequate.

Evaluation Criteria

K.4. The offsite response organization shall establish the decision chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides (i.e., EPA PAGs for emergency workers and lifesaving activities).

Statement

K.4. The NHY ORO has established criteria and set up a decision chain for authorizing emergency worker exposures. The plan indicates that the exposure limits adopted by the NHY ORO are the emergency worker whole-body exposure PAGs established by the EPA. The NHY ORO has established various administrative limits between 5 rem and 25 rem with the objective of limiting the number of emergency workers who may reach 25 rem. The Exposure Control Coordinator, the Radiological Health Advisor, and the NHY Offsite Response Director are responsible for exposure control decisions affecting all emergency workers, according to the plan. The Exposure Control Coordinator (or, for the field teams, the Accident Assessment Coordinator) approves exposures up to 5 rem; the Radiological Health Advisor approves exposures from 5 rem to 25 rem; and the NHY Offsite Response Director approves exposures beyond 25 rem for lifesaving missions.

NHY ORO staff qualifications, as specified in the plan, do assure that there will be an individual in the decision chain suitably qualified to authorize exposures in excess of the EPA general public PAGs.

Plan Reference

K.4. Section 3.5.2; Table 3.5-1; IP 1.1; IP 1.2; IP 1.12; and IP 2.8.

Evaluation

K.4. Adequate.

Evaluation Criterion

K.5.a. The offsite response organization, as appropriate, shall specify action levels for determining the need for decontamination.

Statement

K.5.a. NHY ORO has specified action levels for determining the need for decontamination. For emergency workers, areas of the body, personal articles and equipment will be considered contaminated if the detected levels exceed 200 cpm above a normal background. The procedures specify the use of the APTEC FT126B probe, which is a large area (126 sq cm) detector and count rate meter.

A Personnel Monitoring Team (13 persons) is assigned to the EWF. The Personnel Monitoring Team reports to its team leader. The Monitoring Team leader reports to the Radiological Health Advisor.

The trigger levels for enrolling emergency workers in the radiological screening program are when an individual receives 5 rem or greater whole body exposure, when an individual is suspected of having internal contamination, or when an individual has external contamination greater than 2,000 cpm above background (ten times the contamination trigger level, which is 200 cpm above background).

Plan Reference

K.5.a. Section 3.5.2; IP 1.2; and IP 2.9.

Evaluation

K.5.a. Adequate.

Evaluation Criterion

K.5.b. The offsite response organization, as appropriate, shall establish the means for radiological decontamination of emergency personnel wounds, supplies, instruments and equipment, and for waste disposal.

Statement

K.5.b. The plan has established means for radiological decontamination of emergency personnel, including emergency workers with contaminated wounds; personal articles and equipment. The policy is to address medical needs before decontamination issues. Arrangements have been made for the appropriate disposal of contaminated waste.

Plan Reference

K.5.b. Section 3.5.2 and IP 2.9.

Evaluation

K.5.b. Adequate.

L. Medical and Public Health Support (Planning Standard L):

Arrangements are made for medical services for contaminated injured individuals.¹

Evaluation Criterion

- L.1. The offsite response organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals.

Statement

- L.1. Letters of Agreement have been signed between New Hampshire Yankee and support hospitals outside the Plume Exposure EPZ that will treat contaminated, injured or overexposed individuals. Both a primary and backup hospital are listed.

Plan Reference

- L.1. Section 3.8.1 and Appendix C.

Evaluation

- L.1. Adequate.

Evaluation Criterion

- L.3. The offsite response organization shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacities and any special radiological capabilities. These emergency medical services

¹The availability of an integrated emergency medical services system and a public health emergency plan serving the area in which the facility is located and, as a minimum, equivalent to the Public Health Service Guide for Developing Health Disaster Plans, 1974, and to the requirements of an emergency medical services system as outlined in the Emergency Medical Services System Act of 1973 (PL 93-154 and amendments in 1979 PL 96-142), should be part of and consistent with overall State or local disaster control plans and should be compatible with the specific overall emergency response plans for the facility.

should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons.

Statement

L.3. The Plan contains a list of hospitals with appropriate information.

Plan Reference

L.3. Section 3.8.1; Appendix C; and Appendix M.

Evaluation

L.3. Adequate.

Evaluation Criterion

L.4. The offsite response organization shall arrange for transporting victims of radiological accidents to medical support facilities.

Statement

L.4. NHY ORO has made provisions for the transportation of injured contaminated or overexposed individuals from a Reception Center or the Emergency Worker Facility to a designated hospital. One ambulance will be kept at each Reception Center. NHY Offsite Response staff vehicles may also be used, if necessary.

Plan Reference

L.4. Section 3.8.1.

Evaluation

L.4. Adequate.

M. Recovery and Reentry Planning and Postaccident Operations (Planning Standard M):

General plans for recovery and reentry are developed.

Evaluation Criterion

- M.1. The offsite response organization, as appropriate, shall develop general plans and procedures for reentry and recovery and describe the means by which decisions to relax protective measures (e.g., allow reentry into an evacuated area) are reached. This process should consider both existing and potential conditions.

Statement

- M.1. NHY ORO has developed general plans and procedures for reentry and recovery. The plan describes means by which decisions to relax protective measures will be reached, including field surveys, sample collection and analysis, and interpretation of results. This process considers both existing conditions and potential changes in conditions. The plan cites the EPA draft relocation PAGs as criteria to be used (Table 3.9-1). The Plan contains a statement that the NHY Offsite Response Director, through the Assistant Offsite Response Director, Support Liaison, will request guidance from the State or local government as to whom should be allowed to reenter an evacuated or restricted area.

Plan Reference

- M.1. Section 3.5; Section 3.9; Table 3.9-1; and Appendix J.

Evaluation

- M.1. Adequate.

Evaluation Criterion

- M.3. The offsite plan shall specify means for informing members of the offsite response organization that a recovery operation is to be initiated, and of any changes in the organizational structure that may occur.

Statement

- M.3. Members of the NHY ORO are to be informed of recovery operations by emergency communications which have been operational throughout the emergency. Restructuring of the NHY ORO, as appropriate, will be directed by the NHY Offsite Response Director.

Plan Reference

- M.3. Section 3.9.2.

Evaluation

- M.3. Adequate.

Evaluation Criterion

- M.4. The offsite plan shall establish a method for periodically estimating total population exposure.

Statement

- M.4. The offsite plan assigns the responsibility and describes the general basis for estimating total population doses, i.e., field monitoring results, dispersion calculations, population data, and exposure times. Section 3.9 of the Plan defines total population exposure estimates as an integrated dose exposure commitment from both the plume and ingestion exposure pathways for the population at risk. Total population exposure estimates will be calculated at the conclusion of a radiological emergency.

Plan Reference

- M.4. Section 3.9.4 and IP 2.2.

Evaluation

- M.4. Adequate.

N. Exercises and Drills (Planning Standard N):

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Evaluation Criterion

N.1.a. An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. The emergency preparedness exercise shall simulate an emergency that results in offsite radiological releases which will require response by offsite response organizations. Exercises shall be conducted as set forth in NRC and FEMA rules.

Statement

N.1.a. The Director, Emergency Preparedness/Response and Implementation (or designee) is responsible for ensuring that exercises (and drills) are conducted according to NRC and FEMA guidelines.

Plan Reference

N.1.a. Section 6.5 and Appendix K.

Evaluation

N.1.a. Adequate.

Evaluation Criterion

N.1.b. An exercise shall include mobilization of offsite response organization resources adequate to verify the capability to respond to an accident scenario requiring response. This includes the demonstration of offsite response organization capabilities to interface with non-participating State and local government, but does not include the use of standins for the anticipated State and local response. The offsite response organization shall provide for a critique of the biennial exercise by Federal and offsite response organization observers/evaluators. The scenario shall be varied from exercise to exercise such that all major elements of the plans and preparedness organizations are tested within a six-year period. Each organization shall make provisions to start an exercise between 8:00 p.m.

and 4:00 a.m. Exercises shall be conducted during different seasons of the year. At least one exercise shall be unannounced.

Statement

N.1.b. The Plan commits NHY to exercise the full Plan capability at least once annually; with a full-scale Federally-observed exercise conducted once every two years. NHY is committed to vary the scenario used for the exercise, the time of day, and weather (season) conditions under which the exercise is conducted. NHY has stated that some exercises "will" be unannounced. The Director Emergency Response and Implementation (or designee) is responsible for ensuring that the exercises (and drills) are conducted at the required intervals.

The plan commits NHY ORO to have Federal agencies observe, evaluate, and critique FEMA-graded exercises; while the NHY Drill and Exercise Group will assemble a team of controllers to conduct and evaluate all exercises and drills.

The plan commits NHY ORO to exercise mobilization of offsite response organization resources adequate to verify the capability of the NHY ORO (and offsite support organizations) to respond to an accident scenario requiring response. This includes opportunities for State and local organizations to participate. If these organizations do not participate in the exercises (or drills), state and local participation will be simulated through the use of a scenario drill message.

Plan Reference

N.1.b. Section 6.5 and Appendix K.

Evaluation

N.1.b. Adequate.

Evaluation Criterion

N.2. A drill is a supervised instruction period aimed at testing, developing and maintaining skills in a particular operation. A drill is often a component of an exercise. A drill shall be supervised and evaluated by a qualified drill instructor. The offsite response organization shall conduct drills, in addition to the biennial exercise at the frequencies indicated below:

N.2.a. Communication Drills

Communications between the licensee and the offsite response organization within the plume exposure pathway Emergency Planning Zone shall be tested monthly. Communications with Federal emergency response organizations and offsite response organizations within the ingestion pathway shall be tested quarterly. Communications between the nuclear facility, offsite response organization's operations centers, and field assessment teams shall be tested annually. Communication drills shall also include the aspect of understanding the content of messages. If practicable, attempts should be made to include non-participating organizations in the monthly communication drills.

Statement

N.2.a. The Plan commits NHY ORO to conduct drills. These drills are to include communication drills which will test: (1) communications (to the extent possible based on participation) with Commonwealth and local governments on a monthly basis; (2) communications with Federal emergency response organizations and the states within the ingestion plume pathway on a quarterly basis (to the extent possible based on the participation of the Commonwealth of Massachusetts); and (3) communications among Seabrook Station, the Commonwealth of Massachusetts, the NHY ORO EOC, and field monitoring teams on an annual basis.

The communication drills will include operation of communication equipment and relaying information prepared in advance to simulate actual emergency communication conditions and to ensure that the content of the message is understood.

Plan Reference

N.2.a. Section 6.5.1 and Appendix K.

Evaluation

N.2.a. Adequate.

Evaluation Criterion**N.2.c. Medical Emergency Drills**

A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services

agencies (i.e., ambulance and offsite medical treatment facility) shall be conducted annually. The offsite portions of the medical drill may be performed as part of the required biennial exercise.

Statement

N.2.c. The Plan commits NHY ORO to conduct an annual medical emergency drill that will involve the participation of ambulance services, offsite medical treatment facilities, and other support services as necessary. The Letters of Agreement between NHY and the local support services agencies stipulate that these agency will be participating in such drills. The offsite portion of the medical drill may be performed as part of the required annual on-site drill.

Plan Reference

N.2.c. Section 6.5.1; Appendix C; and Appendix K.

Evaluation

N.2.c. Adequate.

Evaluation Criterion

N.2.d. Radiological Monitoring Drills

Plant environs and radiological monitoring drills (onsite and offsite) shall be conducted annually. These drills shall include collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping. Where appropriate, local organizations shall participate.

Statement

N.2.d. The Plan commits NHY ORO to conduct semiannual radiological monitoring drills. These drills will include collection and analysis of sample media, and provisions for communications and record keeping. The drills are to include Seabrook Station personnel, radiological monitoring teams, and radiological assessment personnel.

Plan Reference

N.2.d. Section 6.5.1 and Appendix K.

Evaluation

N.2.d. Adequate.

Evaluation Criterion

N.2.e. Health Physics Drills

Health Physics drills shall be conducted semiannually which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

Statement

N.2.e. The Plan commits NHY ORO to conduct semiannual Health Physics Drills. These drills are to include analysis of simulated airborne and liquid releases, and direct radiation measurements in the environment.

Plan Reference

N.2.e. Section 6.5.1 and Appendix K.

Evaluation

N.2.e. Adequate.

Evaluation Criterion

N.3. The offsite response organization shall describe how exercises and drills are to be carried out to allow free play for decisionmaking and to meet the following objectives. Pending the development of exercise scenarios and exercise evaluation guidance by NRC and FEMA the scenarios for use in exercises and drills shall include but not be limited to the following:

N.3.a. The basic objective(s) of each drill and exercise and appropriate evaluation criteria;

Statement

N.3.a. The Plan commits NHY ORO to establish the objectives. Objectives will be explained in terms of emergency response functions to be exercised. Evaluation criteria will be developed.

Plan Reference

N.3.a. Section 6.5.3.

Evaluation

N.3.a. Adequate.

Evaluation Criterion

N.3.b. The date(s), time period, place(s) and participating organizations;

Statement

N.3.b. The Plan commits NHY ORO to schedule the date(s), time period, place(s), and participating organizations for each exercise and drill.

Plan Reference

N.3.b. Section 6.5.3.

Evaluation

N.3.b. Adequate.

Evaluation Criterion

N.3.c. The simulated events;

Statement

N.3.c. The Plan commits NHY ORO to develop a scenario with simulated events for exercises and drills that will include escalation through the emergency

classification levels. The Director, Emergency Preparedness/Response and Implementation will ensure that sufficient offsite events are added to meet the objectives of the exercise.

Plan Reference

N.3.c. Section 6.5.3.

Evaluation

N.3.c. Adequate.

Evaluation Criterion

N.3.d. A time schedule of real and simulated initiating events;

Statement

N.3.d. The Plan commits NHY ORO to a schedule of real and simulated events. The timeline of offsite events will be developed and integrated with initiating events prepared for Seabrook Station.

Plan Reference

N.3.d. Section 6.5.3.

Evaluation

N.3.d. Adequate.

Evaluation Criterion

N.3.e. A narrative summary describing the conduct of the exercises or drills to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities; and

Statement

N.3.e. The Plan commits NHY ORO to develop a narrative summary that describes the conduct of the exercise. The summary will include real and

simulated events, anticipated response, and the extent to which the activities will be exercised or simulated.

Plan Reference

N.3.e. Section 6.5.3.

Evaluation

N.3.e. Adequate.

Evaluation Criterion

N.3.f. A description of the arrangements for and advance materials to be provided to official observers.

Statement

N.3.f. The Plan commits the NHY ORO to work with FEMA to schedule the placement of evaluators during drills and exercises. The Drill and Exercise Group will assemble a team of controllers to conduct and evaluate all drills and exercises. Evaluators and controllers will be provided with copies of the scenarios and any required plans and procedures prior to the exercise or drill. Evaluators and controllers will be briefed as to the schedule of events and evaluation criteria for each location, and will be provided with evaluation sheets and guidelines applicable to their locations.

Plan Reference

N.3.f. Section 6.5.4.

Evaluation

N.3.f. Adequate.

Evaluation Criterion

N.4. Official observers from Federal government and the offsite response organization shall observe, evaluate, and critique the required exercises. A critique shall be scheduled at the conclusion of the exercise to evaluate the ability of organizations to respond as called for in the offsite plan. The

critique shall be conducted as soon as practicable after the exercise, and a formal evaluation shall result from the critique.

Statement

- N.4. The Plan commits NHY ORO to have evaluators from Federal agencies observe, evaluate, and critique FEMA-graded exercises. The Drill and Exercise Group of NHY will assemble a team of controllers to conduct and evaluate all drills and exercises. The Director, Emergency Preparedness/Response and Implementation will ensure that a critique of the NHY ORO personnel is conducted at the conclusion of each exercise. The Director, Emergency Preparedness/Response and Implementation will ensure that a formal Post-Exercise Critique Report is prepared and distributed.

Plan Reference

- N.4. Section 6.5.4; Section 6.5.5; Section 6.5.6; and Appendix K.

Evaluation

- N.4. Adequate.

Evaluation Criterion

- N.5. The offsite response organization shall establish means for evaluating observer and participant comments on areas needing improvement, including emergency plan procedural changes, and for assigning responsibility for implementing corrective actions. The offsite response organization shall establish management control used to ensure that corrective actions are implemented.

Statement

- N.5. The Plan commits the Director, Emergency Preparedness/Response and Implementation to review all controller/evaluator comments on exercises and drills and to prepare a response stating his concurrence or disagreement with any listed issue. The Director will then prepare a schedule that tracks assigned responsibilities for providing corrective actions for valid issues. Corrective actions may include revisions of the Plan or implementation procedures, upgrades in equipment or facilities, and additional training and drills.

Plan Reference

N.5. Section 6.5.6.

Evaluation

N.5. Adequate.

Evaluation Criterion

N.6. The offsite response organization shall attempt to involve the non-participating State and local government in the exercises and drills, but their participation is not required.

Statement

N.6. The Plan states that Emergency Response Training will be offered to State and local emergency officials and workers. Exercises and drills are considered part of the emergency response training offered by the NHY ORO.

Plan Reference

N.6. Section 6.1.

Evaluation

N.6. Adequate.

O. Radiological Emergency Response Training (Planning Standard O):

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

Evaluation Criterion

- O.1. The offsite response organization shall assure the training of appropriate individuals. The offsite response organization shall participate in and receive training. Where mutual aid agreements exist between local agencies such as fire, police and ambulance/rescue, the training shall also be offered to the other departments who are members of the mutual aid district.¹

Statement

- O.1. The NHY ORO as established a program to train appropriate individuals assigned to the position descriptions within the organization. Training is to be received by all members of the NHY ORO, unless individuals are specifically qualified for exemption, and is offered to other local agencies and departments. The training is conducted by the NHY ORO Training Group under the supervision of the Director, Emergency Preparedness/Response and Implementation.

Plan Reference

- G.1. Section 6.1; Table 6.3-1; and Appendix K.

Evaluation

- O.1. Adequate.

¹Training for hospital personnel, ambulance/rescue, police and fire department shall include the procedures for notification, basic radiation protection, and their expected roles. For those local services support organizations who will enter the site, training shall also include site access procedures and the identity (by position and title) of the individual in the onsite emergency organization who will control the organization support activities. Offsite emergency response support personnel should be provided with appropriate identification cards where required.

Evaluation Criterion

- O.4. The offsite response organization shall establish a training program for instructing and qualifying personnel who will implement radiological emergency response plans.² The specialized initial training and periodic retraining programs (including the scope, nature and frequency) shall be provided in the following categories:
- O.4.a. Directors or coordinators of the response organizations;

Statement

- O.4.a. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization.

Plan Reference

- O.4.a. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

- O.4.a. Adequate.

Evaluation Criterion

- O.4.b. Personnel responsible for accident assessment;

Statement

- O.4.b. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1). Personnel responsible for accident assessment include the Technical Advisor, the Radiological Health Advisor, Accident Assessment Coordinator, Dose Assessment Technician, and Exposure Control Coordinator.

²If the offsite response organization lacks the capability and resources to accomplish this training, they may look to the licensee and the Federal government (FEMA) for assistance in this training.

The Technical Advisor receives the Dose/Accident Assessment module. The Accident Assessment Coordinator receives the Dose/Accident Assessment, Radiation Surveys & Analysis, and Dosimetry Recordkeeping modules. The Dose Assessment Technician receives the Dose/Accident Assessment and Radiation Surveys & Analysis modules. All these groups receive the basic overview on emergency preparedness, EOC operation and training on their procedures.

Plan Reference

O.4.b. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

O.4.b. Adequate.

Evaluation Criterion

O.4.c. Radiological monitoring teams and radiological analysis personnel;

Statement

O.4.c. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1).

The Field Team Dispatcher, the Field Monitoring Teams, and Sample Collection teams receive the Radiation Surveys & Analysis module. The Reception Center and Emergency Worker Facility Teams receive the Monitoring & Decontamination Operation module. The Emergency Worker Facility Team receives the Staging Area operations module. Both these groups receive the basic overview on emergency preparedness and training on their procedures.

Plan Reference

O.4.c. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

O.4.c. Adequate.

Evaluation Criterion

O.4.d. Police, security and fire fighting personnel;

Statement

O.4.d. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1).

The Evacuation Support Coordinator receives the EOC Operations, Traffic and Access Control, and Transportation modules. The Special Population Coordinator, the School Coordinator, and Bus Company Liaison receive the EOC Operations module. The Staging Area Leader, Evacuation Support Dispatcher, and Traffic Guides receive the Traffic and Access Control module. The Bus Company Liaison, the Staging Area Leader, the Evaluation Support Dispatcher, the Special Vehicle Dispatcher, the Bus Dispatcher, the Transfer Point Dispatcher, the Route Guides, the road crews, the ambulance, bus and van drivers receive the Transportation module. All these groups receive the basic overview on emergency preparedness and training on their procedures.

Plan Reference

O.4.d. Section 6.3; Table 6.3-1, and Appendix K.

Evaluation

O.4.d. Adequate.

Evaluation Criterion

O.4.f. First aid and rescue personnel;

Statement

O.4.f. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1).

The Ambulance Drivers receive the Medical Emergency module, the basic overview on emergency preparedness, and training on their procedures.

Plan Reference

O.4.f. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

O.4.f. Adequate.

Evaluation Criterion

O.4.g. Local support services personnel including Civil Defense/Emergency Service personnel;

Statement

O.4.g. The local organizations are not participating in the planning effort.

See statement under O.6.

Plan Reference

O.4.g. None.

Evaluation

O.4.g. Not Applicable.

Evaluation Criterion

O.4.h. Medical support personnel;

Statement

O.4.h. No medical support personnel are included in the NHY ORO, according to the position descriptions given in the plan (Section 2.1.1). Ambulance drivers are considered in this review under criterion O.4.f., first aid and rescue personnel.

Plan Reference

O.4.h. Section 6.3.

Evaluation

O.4.h. Not Applicable.

Evaluation Criterion

O.4.j. Personnel responsible for transmission of emergency information and instructions; and

Statement

O.4.j. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1).

The Public Information Advisor, Communications Coordinator, Public Information Coordinator, Public Notification Coordinator, the VANS Operators, and the Airborne Alerting Pilot receive the Public Alert and Notification System Activation module. The Public Information Advisor, Public Information Coordinator, Public Information Staff, Rumor Control Staff, Media Center Staff, and Joint Telephone Information Center staff receive the Public Information module. All these groups receive the basic overview on emergency preparedness and training on their procedures.

Plan Reference

O.4.j. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

O.4.j. Adequate.

Evaluation Criterion

- O.4.k. Liaison personnel responsible for interfacing with State and local responders.

Statement

- O.4.k. The NHY ORO has established a training program for instructing and qualifying personnel who will implement radiological emergency response plans. Specific training modules, out of a total of 21 modules, are assigned for each of the position descriptions within the organization (Table 6.3-1).

The Local EOC Liaisons receive the Staging Area Operations module. The State liaisons receive the EOC operations, Dosimetry Recordkeeping and Emergency Management modules. In addition, the State Liaison assigned to the Massachusetts Department of Public Health receives the Dose/Accident Assessment module. All these groups receive the basic overview on emergency preparedness, Transportation, and Dosimetry Recordkeeping modules, as well as training on their procedures.

Plan Reference

- O.4.k. Section 6.3; Table 6.3-1; and Appendix K.

Evaluation

- O.4.k. Adequate.

Evaluation Criterion

- O.5. The offsite response organization shall provide for the initial and annual retraining of personnel with emergency response responsibilities.

Statement

- O.5. The training program described in the plan provides for the initial and annual retraining (Appendix K, p. K-8) of personnel with emergency response responsibilities.

Plan Reference

- O.5. Section 6.1 and Appendix K.

Evaluation

O.5. Adequate.

Evaluation Criterion

O.6. The offsite response organization shall offer training to non-participating State and local governments and other organizations.

Statement

O.6. The Plan makes a commitment to offer training to non-participating State and local governments and other organizations. NHY has offered training to non-participating State and local governments.

A suggested training matrix for such organizations is given in the plan, identifying specific modules appropriate to each agency or position (Table 6.6-1).

Plan Reference

O.6. Section 6.6 and Table 6.6-1.

Evaluation

O.6. Adequate.

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans (Planning Standard P):

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Evaluation Criterion

- P.1. The offsite response organization shall provide for the training of individuals responsible for the offsite planning effort.

Statement

- P.1. The NHY ORO will provide for the training of appropriate staff to assure that personnel remain qualified and aware of current issues in emergency preparedness.

Plan Reference

- P.1. Section 7.1.4.

Evaluation

- P.1. Adequate.

Evaluation Criterion

- P.2. The offsite response organization shall identify by title the individual with the overall authority and responsibility for radiological emergency response planning.

Statement

- P.2. The NHY Executive Director of Emergency Preparedness and Community Relations has overall responsibility for Seabrook Emergency Preparedness, including offsite emergency planning.

Plan Reference

- P.2. Section 7.1.1.

Evaluation

P.2. Adequate.

Evaluation Criterion

P.3. The offsite response organization shall designate an Emergency Planning Coordinator with responsibility for the development and updating of emergency plans and coordination of these offsite plans with other response organizations.

Statement

P.3. The NHY Executive Director of Emergency Preparedness and Community Relations has responsibility for plan maintenance and coordination of the Plan with other response organizations.

Plan Reference

P.3. Section 7.1.2.

Evaluation

P.3. Adequate.

Evaluation Criterion

P.4. The offsite response organization shall update its plan and agreements as needed, review and certify it to be current on an annual basis. The update shall take into account changes identified by drills and exercises.

Statement

P.4. The NHY ORO has made provisions for annual updates of its plan and review of its agreements. An annual letter of certification will be sent to FEMA by January 31 of every year.

Plan Reference

P.4. Section 7.2 and Section 7.6.

We recommend that Appendix F be revised to reflect the current status of supporting plans.

Evaluation

P.4. Adequate.

Evaluation Criterion

P.5. The offsite emergency response plans and approved changes to the plans shall be forwarded to all participating organizations and appropriate individuals with responsibility for implementation of the plans. Revised pages shall be dated and marked to show where changes have been made.

Statement

P.5. The NHY ORO has made provisions for promulgating revisions. The NHY CRO has made provisions for forwarding revisions to plan holders of record.

Plan Reference

P.5. Section 7.2.1.

Evaluation

P.5. Adequate.

Evaluation Criterion

P.6. The offsite plan shall contain a detailed listing of supporting plans and their source.

Statement

P.6. The NHY ORO plan contains a list of supporting plans. Reference to the Yankee Atomic Mutual Assistance Plan could not be located in Appendix F. The Parker River National Wildlife Refuge Emergency Response Plan and the EBS Station Plan are listed as being "under development."

Plan Reference

P.6. Appendix F.

Evaluation

P.6. Adequate.

We recommend that Appendix F be revised to reflect the current status of supporting plans.

NHY has indicated (9/28/88 letter) that Appendix F will be revised in the next amendment to reflect the current status of the Parker River and EBS Station Plans, and to include the Yankee Atomic Mutual Assistance Plan.

Evaluation Criterion

P.7. The offsite plan shall contain as an appendix listing, by title, procedures required to implement the offsite plan. The listing shall include the section(s) of the offsite plan to be implemented by each procedure.

Statement

P.7. The NHY ORO plan contains an appendix list, by title, of procedures required to implement the plan.

Plan Reference

P.7. Appendix E.

Evaluation

P.7. Adequate.

Evaluation Criterion

P.8. The offsite plan shall contain a specific table of contents. Plans submitted for review should be cross-referenced to these criteria.

Statement

P.8. The NHY ORO plan contains a specific table of contents. The plan sections are cross-referenced to these criteria.

Plan Reference

P.8. Appendix D.

Evaluation

P.8. Adequate.

Evaluation Criterion

P.10. The offsite response organization shall provide for updating telephone numbers in emergency procedures at least quarterly.

Statement

P.10. The NHY ORO has made provisions for updating the Communication Directory quarterly.

Plan Reference

P.10. Section 7.4.3 and IP 4.4.

Evaluation

P.10. Adequate.

Evaluation Criterion

P.11. The offsite response organization shall provide copies of the offsite plan and its revisions to non-participating State and local government entities where interfaces are identified in Planning Standard A.

Statement

P.11. The NHY ORO has made provisions to provide copies of the complete Plan to the Commonwealth of Massachusetts and the six Massachusetts plume exposure EPZ communities.

Plan Reference

P.11. Section 7.2.1.

Evaluation

P.11. Adequate.

Review and Evaluation of Seabrook Plan for
Massachusetts Communities: Rating Summary

Element	Rating	Element	Rating	Element	Rating
A.1.a	A	H.3	A	M.4	A
A.1.b	A	H.4	A	N.1.a	A
A.1.c	A	H.7	A	N.1.b	A
A.1.d	A	H.10	A	N.2.a	A
A.1.e	A	H.11	A	N.2.c	A
A.2.a	A	H.12	A	N.2.d	A
A.2.b	A	I.7	A	N.2.e	A
A.3	A	I.8	A	N.3.a	A
A.4	A	I.9	A	N.3.b	A
C.1.a	A	I.10	A	N.3.c	A
C.1.b	A	I.11	A	N.3.d	A
C.1.c	A	J.2	NA	N.3.e	A
C.2	A	J.9	A	N.3.f	A
C.3	A	J.10.a	A	N.4	A
C.4	A	J.10.b	A	N.5	A
C.5	A	J.10.c	I	N.6	A
D.3	A	J.10.d	A	O.1	A
D.4	A	J.10.e	A	O.4.a	A
E.1	A	J.10.f	A	O.4.b	A
E.2	A	J.10.g	A	O.4.c	A
E.3	A	J.10.h	A	O.4.d	A
E.4	I	J.10.i	A	O.4.e	A
E.5	A	J.10.j	A	O.4.f	A
E.8	A	J.10.k	A	O.4.g	NA
F.1.a	A	J.10.l	A	O.4.h	NA
F.1.b	A	J.10.m	A	O.4.j	A
F.1.c	A	J.11	A	O.4.k	A
F.1.d	A	J.12	A	O.5	A
F.1.e	A	K.3.a	A	O.6	A
F.2	A	K.3.b	A	P.1	A
F.3	A	K.4	A	P.2	A
G.1	A	K.5.a	A	P.3	A
G.2	I	K.5.b	A	P.4	A
G.3	A	L.1	A	P.5	A
G.4.a	A	L.3	A	P.6	A
G.4.b	A	L.4	A	P.7	A
G.4.c	A	M.1	A	P.8	A
G.5	A	M.3	A	P.10	A
				P.11	A

APPENDIX A:

FEMA-REP-11 REVIEW AND EVALUATION OF
SEABROOK PUBLIC EDUCATION MATERIALS
FOR PLUME EXPOSURE PATHWAY

APPENDIX A:**FEMA-REP-11 REVIEW AND EVALUATION OF
SEABROOK PUBLIC EDUCATION MATERIALS
FOR PLUME EXPOSURE PATHWAY**

We have reviewed the proposed changes to the Massachusetts public information materials, dated July 27, 1988, that were submitted with your letter of July 29, 1988, using FEMA's REP-11, "A Guide to Preparing Emergency Public Information Material", as a basis for review and evaluation purposes.

The Seabrook Plan for Massachusetts Communities contained the 1988-89 Emergency Plan Information Calendar and a variety of supporting materials. Please see Attachment A for our revised comments on these materials. This appendix contains our review and evaluation of the 1988-89 Emergency Plan Information Calendar.

The following evaluation rating scheme identifies the rating system used to evaluate the Emergency Plan Information Calendar:

Yes, fully meets identified criteria.

Marginally acceptable; could be improved.

Inadequate or Missing.

Insufficient information to evaluate; item should be checked for consistency with FEMA criteria or for being acceptably addressed through another medium.

This report is divided into three categories:

CATEGORY 1: These items are critical to the effectiveness of a public information document. All items identified as not fully meeting the identified criteria (eg., those items marked I, M, or ?) must be improved prior to publication and distribution in 1988.

CATEGORY 2: These items are important to the effectiveness of a public information document. Items in this category identified as missing (?), inadequate (I), or as marginally acceptable (M), should be reviewed and revision considered prior to the distribution.

CATEGORY 3: These items are enhancements to the overall quality of a public emergency information document. Items in this category identified as missing (?) or inadequate (I), or as marginally acceptable (M), should be reviewed and revision considered prior to distribution.

Note: We have sequentially numbered the review criteria of FEMA-REP-11 in order to provide a point of reference.

CATEGORY 1

CONTENT

Evaluation Criterion

1. Document has a clear emergency focus. It should tell the reader what to expect, in what sequence. It should tell what actions, in order of priority, should be taken if notification is given.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

2. The content is consistent with the emergency plan and EBS messages.

Statement

The proposed text changes and additions/deletions (Attachment A, Section I., Items E, F, G, H, I, J, & K, 7/27/88) would specify: that the public (permanent and transient) would have to evacuate the beaches at Site Area Emergency or General Emergency; that the public may be asked to shelter at the SAE; and informs/educates the public that certain precautionary PAs for Special Populations and livestock would be recommended at SAE and GE.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

3. There is a clear statement of purpose.

Statement

The proposed statement of purpose (Attachment A, Section I, Item A, 7/27/88,) will clearly state the purpose of the calendar to the reader.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

4. If the emergency plan calls for an emergency phone number, it is given, along with instructions on the procedures to be followed relative to its use. Be sure to distinguish "hotline" numbers for use during emergencies as separate from information numbers during non-emergency times.

Statement

The current document does contain and reference spaces for "Emergency and HOTLINE" phone numbers. The document does contain phone numbers to call for additional information. The proposed revision (Attachment A, Section I, Item B, 7/27/88) provides updated phone numbers.

Recommendation: Revise text as proposed. We assume that the appropriate phone numbers will be placed in the document when it is published and distributed.

Evaluation

Yes.

Evaluation Criterion

5. There is a contact given for additional information.

Statement

See #4.

Evaluation

Yes.

Evaluation Criterion

6. Information is given regarding notification procedures.

Statement

The notification procedures are clearly explained for permanent residents. The proposed revision to the notification process for boaters on the Merrimack River and those portions of the Atlantic Ocean (Attachment A, Section I, Item D, 7/27/88) will clearly explain their notification procedure within the plume EPZ. The proposed revision to the notification description (Attachment A, Section I, Item D, 7/27/88) on how the transients on the beaches and visiting those portions of the Parker River Wildlife Refuge will be notified will be clearly explained.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

7. Identification of EBS stations is given, with stations/channels.

Statement

The radio stations, WHAV 1490 AM and WLYT 92.5 FM, are identified on page 2 of the document. The proposed revision (NHV letter, 7/29/88) provides for the addition of EBS radio station WCGY.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

8. There is a highly visible statement on the cover about keeping the document for use in the event of an emergency.

Statement

A retention statement appears on the front and back addressed side of the self-mailer. The proposed revision to the cover (Attachment A, Section I, 7/27/88) will provide the instruction to "READ" as well as to "SAVE" the document.

Recommendation: Revise cover(s) text as proposed.

Evaluation

Yes.

Evaluation Criterion

9. Educational Information. The very basic information on radiation must be included in the emergency brochure to convey a sense of health risk.

Statement

This information is presented in a question and answer format (pages 10 & 11). The questions are well chosen, simple, and sequenced to provide useful information. The information is largely in text form, and the language can be complex. Tables and diagrams are used effectively to summarize certain information. The proposed revisions to the amounts of radiation quoted in this section (Attachment A, Section I, Items P & Q) are appropriate.

Recommendation: Revise text as proposed.

Evaluation

Yes.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

Evaluation Criterion

10. Sheltering.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

11. Evacuation routes, both written explanations in the text and illustrated directions on an evacuation map of the plume EPZ.

Statement

The proposed text and proposed enlarged plume map (Attachment A, Section I, Items L, & M, 7/27/88) will provide appropriate directions and illustrations of the evacuation routes.

Recommendation: Revise the map and text as proposed.

Evaluation

Yes.

Evaluation Criterion

12. Transportation provisions.

Statement

Emergency bus route instructions and maps for each major bus route by community are contained in the document (pages 7-10). The information is organized in such a way that those needing transportation assistance could easily locate emergency buses.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

13. School provisions; including guidelines and/or instructions for parents.

Statement

The proposed text (Attachment A, Section I, Items G, J, K, L, and N, 7/27/88) clearly describe the provisions and plans for school children.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

14. Instruction on the care and feeding of livestock, if appropriate, in the area.

Statement

The document outlines simple steps for the protection of pets and livestock and references source of additional information for farmers about the protection of livestock and crops (page 3).

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

15. Reception Centers, relocation and/or congregate care centers.

Statement

The document identifies reception centers (pages 3, 4, 5 & 6). The proposed text (Attachment A, Section I, Item L, 7/27/88) does adequately describe the distinction between reception centers, host facilities, and shelters. The Plan identifies, host facilities for schools, host facilities for Special Groups, and Congregate Care Centers for the general public, who may need temporary shelter.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

16. Provisions for the handicapped.

Statement

None.

Evaluation

Yes.

ORGANIZATION

Evaluation Criterion

17. The emergency instructions occupy a highly visible place in the front of the document.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

18. The information is logically sequenced.

Statement

The order of presentation is appropriate if the reader progresses through the information in the intended sequence. The proposed revisions to format (Attachment A, Section II, 7/27/88) will improve the order of presentation and provide logical sequencing of information.

Recommendation: Revise the format and arrangement of information as proposed.

Evaluation

Yes.

Evaluation Criterion

19. Information is clearly organized and relevant to the purpose of providing emergency guidance.

Statement

Overall, the document is well-organized for the purpose of providing vital emergency information.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

20. Public education passages, if included, are not distracting.

Statement

The bulk of educational information appropriately follows the emergency action sections. The proposed revisions to format (Attachment A, Section II, 7/27/88) will improve the order of presentation and provide logical sequencing of information..

Recommendation: Revise the format as proposed.

Evaluation

Yes.

COMPREHENSION FACTORS**Evaluation Criterion**

21. The document layout is such that the text is easy to follow from paragraph to paragraph and from page to page. Page and section breaks are consistent with the logic and organization of the material.

Statement

The double panel format of the opened pages causes the columns to read vertically down two pages instead of across horizontally. The proposed table of contents and use of icons (Attachment A, Section I, Item C, 7/27/88) should assist the reader in following the text from paragraph to paragraph and from page to page.

Recommendation. Revise format and add table of contents as proposed.

Evaluation

Yes.

Evaluation Criterion

22. The information is presented in such a way that there is a logical sequence of topics. The "flow" of information is smooth and not disjointed.

Statement

See comments under "Format" (#18), "Public Education Material" (#20), and "Layout" (#21).

Recommendation: None.

Evaluation

Yes.

Evaluation Criterion

23. Within a given topic, actions to be taken come first, followed by rationale or explanation.

Statement

Vital emergency instructions precede other related information in each section of the document.

Recommendation: None.

Evaluation

Yes.

Evaluation Criterion

24. Vocabulary is simple, comprised of non-technical terms likely to be found in the vocabularies of the intended population.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

25. Sentences are brief and concise.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

26. Typography is legible and easy to perceive.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

27. The cover clearly states that the document contains important emergency instructions.

Statement

Both front and back covers indicate the emergency nature of the document.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

28. The choice of colors is appropriate for color-blind individuals.

Statement

The proposed use of blue, yellow, black, white, and gray colors (Attachment A, Section II, 7/27/88) will be appropriate for color-blind individuals.

Recommendation: Select colors as appropriate.

Evaluation

Yes.

Evaluation Criterion

29. The reading level is appropriate. This is based on one of the following:

Statement

A Dale-Chall evaluation of readability indicated that the entire emergency procedures section of the document has a reading level of grade 9 or below, as characterized by the Dale-Chall readability formula.

Recommendation: NONE.

Evaluation

Yes.

CATEGORY 2CONTENT

Evaluation Criterion

30. Information is given regarding emergency action levels, and enough educational information on radiation is given to provide an understanding of sources and relative effects, or provision is made in a separate document.

Statement

The proposed text changes and additions/deletions (Attachment A, Section I., Items E, F, G, H, I, J, & K, 7/27/88) would specify: that the public (permanent and transient) would have to evacuate the beaches at Site Area Emergency or General Emergency; that the public may be asked to shelter at the SAE; and informs/educates the public that certain precautionary PAs for Special Populations and livestock would be recommended at SAE and GE.. The document does contain an excellent discussion of radiation and radioactivity in the educational section. The proposed revisions (Attachment A, Section I, Items P & Q, 7/27/88) would enhance the already excellent discussion of radiation and radioactivity.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

31. Information has been provided for transients and visitors through appropriate means.

Statement

Information has been provided for transients and visitors via the production of ancillary materials.

Recommendation: See Attachment A for review and evaluation comments.

Evaluation

Yes.

Evaluation Criterion

32. A method of identifying special needs has been provided in such a way that it cannot be lost during shipment or during the initial reading.

Statement

This rating (Yes) is based on the assumption that the survey card and sticker will ultimately be firmly bound into the calendar.

Recommendation: In order to avoid the possible loss of the survey card/sticker, prior to the initial reading of the document, we recommend that the postage-paid card be either sewn in or stapled to the document.

Evaluation

Yes.

Evaluation Criterion

33. Consideration has been given to needs of the special population.

Statement

See our comments under "Schools" (#13) in Category 1 and "Method of Identifying Special Needs" (#32) in Category 2.

Recommendation: None.

Evaluation

Yes.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

Evaluation Criterion

34. Respiratory protection.

Statement

Respiratory protection is addressed (page 2) in the last bulleted item in the section "How to Take Shelter."

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

35. Radioprotective drugs (if adopted by State or local government agencies for use by the general public).

Statement

There is no mention made of the use of radioprotective drugs for the general public, which is in agreement with current State(s) policies.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

36. Encouragement to alert neighbors, by means other than the telephone, to ensure that they also heard and understood the warning signals.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

37. Emergency supplies checklist to have in the home.

Statement

The proposed section on advance planning (Attachment A, Section I, Items N & O) would provide a means to educate and inform the public on items and processes for being prepared for any emergency.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

38. Supplies checklist for use in the event of evacuation.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

39. Home preparation for sheltering.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

40. Home preparation for evacuation.

Statement

None.

Evaluation

Yes.

ORGANIZATION

Evaluation Criterion

41. General educational material, if included, is placed after the emergency procedures information.

Statement

See comments on "Format" (#18) and "Layout" (#21).

Recommendation: None.

Evaluation

Yes.

COMPREHENSION FACTORS**Evaluation Criterion**

42. The cover design encourages one to open the publication and to read what it contains.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

43. The format is appropriate for the emergency information included by the document, and the size is appropriate.

Statement

The type of document (calendar) and size of the document is appropriate.

Recommendation: None.

Evaluation

Yes.

Evaluation Criterion

44. Photographs, maps, charts, tables and artwork are used effectively to enhance the text and are not distracting.

Statement

The drawings and illustrations are effectively done and mesh well with the adjacent subject matter, reinforcing the content. The plume map is clearly labeled, with proposed revisions (Attachment A, Section I, Item L, 7/27/88). The bus route maps are clearly labeled and easy to use.

Recommendation: Revise plume map as proposed.

Evaluation

Yes.

Evaluation Criterion

45. The various elements of graphic design work together harmoniously to achieve the desired effect.

Statement

The various elements of graphic design which have been incorporated serve to enhance the utility, comprehensibility, and attractiveness of the document.

Recommendation: None.

Evaluation

Yes.

CATEGORY 3CONTENT

Evaluation Criterion

46. The document contains the date of issue and the name of the issuing agency.

Statement

The calendar format insures current dates, and the name of the issuing organization appears on both the front and back cover.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

47. Document contains blank space in the emergency procedures section for personal notes.

Statement

The document includes both a note taking form to be used in recording family information as well as a general notes page.

Recommendation: NONE.

Evaluation

Yes.

Evaluation Criterion

48. Document contains a section on family preplanning.

Statement

The proposed section on advance planning (Attachment A, Section I, Item O) will provide an appropriate section on family planning.

Recommendation: Revise text as proposed.

Evaluation

Yes.

COMPREHENSION FACTORS**Evaluation Criterion**

49. Key symbols or graphic images are used to assist the reader in locating and/or understanding the text.

Statement

Graphic images are used well. The proposed table of contents and use of icons (Attachment A, Section I, Item C) will assist the reader in locating and understanding the text.

Recommendation: Revise text as proposed.

Evaluation

Yes.

Evaluation Criterion

50. The format encourages retention.

Statement

The use of an attractive calendar format is typically a good aid to retention.

Recommendation: None.

Evaluation

Yes.

Evaluation Criterion

51. Color has been used effectively to enhance and highlight important details relative to the emergency information.

Statement

The proposed color use appears to be satisfactory for color-blind persons. We cannot judge the use of color at this time.

Recommendation: None at this time.

Evaluation

Insufficient information.

ATTACHMENT A**SUPPLEMENTARY MATERIALS**

INTRODUCTION: Most of the supplementary materials are intended for distribution to the transient population. Many of the materials have been produced in French and English versions, due to Seabrook's proximity to the Canadian border. The French versions are identical in format and design to their English counterparts. Examination of the French translations reveals that they are accurate, use appropriate vocabulary, and though written in the French of France, they are comprehensible to Canadian French-speaking readers.

The following reviews and evaluations are on the set of documents identified as part in the Plan as part of the public education program.

A FOLD-OUT BROCHURE ENTITLED "MASSACHUSETTS EMERGENCY PLAN INFORMATION"

This brochure, printed in both English and French, is apparently intended for distribution to the Massachusetts transient population. The content is appropriate to the intended audience. The document is logically sequenced and simply worded (the reading level of most passages is 5th-6th grade). Provisions of this brochure should enable transients to protect themselves in the event of a nuclear emergency at Seabrook. The issues are as follows:

- the proposed changes to the section on notification "How you Would be told About an Emergency" (Attachment B, section A, B, C, D, E, F, G, H, I, J, K, L, and M, 7/27/88) would make this document appropriate for the intended audience: eg., there is a discussion of appropriate actions to take.
- the proposed changes to the format (Attachment B, section II, 7/27/88) would provide for easier handling.
- the proposed changes to the map (Attachment B, section L and M) would describe and indicate the appropriate evacuation routes.
- the proposed changes to text of the evacuation route for Salisbury (Attachment B, section L and M) would make the map and text in the flyer consistent with that described in Appendix J.

EMERGENCY INFORMATION DECALS

These decals, available in both English and bilingual English/French, use a simple format to provide a brief description of notification procedures and identification of EBS stations. Primarily intended for display at places of business and at special facilities, they are also mailed to EPZ residents and are a useful addition to the calendar document.

"LETTER" TO HOTEL/MOTEL/RESTAURANT OWNERS AND "LETTER" TO EMPLOYERS

These virtually identical letters request cooperation in distributing an accompanying set of materials (stickers, posters, brochures, etc.). The letters are straightforward, factual, and should pose no problems in interpretation. The proposed changes (Attachment C, 7/27/88) to these letters would enhance their purpose in that encouragements are provided for the letter recipients to develop plans and inform their employees.

"EMERGENCY INSTRUCTIONS" FOR RESIDENTS OF MERRIMAC, MA. AND NEWTON, NH -- A PHONE BOOK AD.

This phone book ad consists of information taken from the text of the emergency brochure for Massachusetts and placed in an 8.5" X 11" back-to-back format. It includes information about notification, EBS systems serving the area, sheltering, evacuation, reception centers, procedures for school children and those with special needs. The ad includes contact phone numbers for further information as well as the addresses for reception centers for the towns of Merrimac and Newton. The proposed changes (Attachment C, item A, B, C and format, 7/27/88) would enhance the instruction quality of the ad and provide a map of the plume EPZ. The ad is action oriented and well sequenced to provide emergency information to the reader. See comments in following section.

"EMERGENCY INSTRUCTIONS" FOR RESIDENTS OF AMESBURY, NEWBURY, NEWBURYPORT, SALISBURY, AND WEST NEWBURY, MA., AND SEABROOK AND SOUTH HAMPTON, NH -- A PHONE BOOK AD.

This ad is identical to the one above except it is revised to include information relevant to appropriate towns. The proposed changes (Attachment C, 7/27/88) would enhance the instruction quality of the ad and provide a map of the plume EPZ.

REQUEST CARD FOR ADDITIONAL INFORMATION

This card apparently accompanies the earlier identified letters to businesses and employers. It is simple and straightforward. The card is a valuable adjunct to the dissemination effort.

POSTERS ENTITLED "MASSACHUSETTS EMERGENCY PLAN INFORMATION" WITH EPZ MAP

These large, 17.5" X 23", and impressive posters provide a summary of emergency actions, school and bus routes information, a clearly marked EPZ map, and explicit evacuation instructions. An English-only and a bilingual version are provided. These posters, if appropriately posted, could provide persons who are in places of work or leisure with access to needed information at the time of an emergency. The proposed changes (Attachment C, item A, B,C, D, and format, 7/27/88) provide appropriate instructions and informations.

FOLDOUT POSTER TYPE DOCUMENT ENTITLED "EMERGENCY BUS INFORMATION"

This 8.5" X 11" (opens to 17" X 22") poster type document is produced in both English and French versions and provides specific bus route maps for six Massachusetts communities. The document is two-sided with detail maps for three towns on each side. The maps are legible, and bus information is clearly presented.

IF YOU HAVE SPECIAL NEEDS POSTER OR AD

This is a single page notice of a special needs survey in the area. Graphics and typography are effectively used to reinforce the message. The distribution of this notice to newspapers, social agencies, religious organizations, etc., should assist in compiling a more complete database of special needs populations.

SIGNS

This document apparently is intended to be a sign. The sign provides information about what to do if a siren is heard. Specifically, the reader is advised to tune to an EBS station for instructions. This sign is bold, uncluttered, and effective in its format and design. A double-sized, bilingual version is also provided.

EMERGENCY INFORMATION FOR FARMERS

This document could serve as the public education document for the entire Seabrook Ingestion EPZ. The document is prepared on the basis of a joint issuance between NHY ORO, the State of New Hampshire, and the State of Maine. It contains a 24 hour information hotline and contains rumor control numbers for each organization. The document describes the means of notification for those farmers living within the plume EPZ and it describes the means of notification for those farmers living between 10 and 50 miles. The document describes protective actions for persons and for farm animals. The document describes a process for reentry into an evacuated area in the event farmers need to return to their farms. The document describes the two levels of emergency actions that could be taken in the event there was measured contamination in foodstuffs. The document contains advice for assisting the farmers in preparing an emergency plan for their farms.

Note: See Appendix B for FEMA-REP-11 review and evaluation of Farmers' Brochure.

APPENDIX B:

FEMA-REP-11 REVIEW AND EVALUATION OF SEABROOK
PUBLIC EDUCATION MATERIALS FOR INGESTION
EXPOSURE PATHWAY

APPENDIX B:

FEMA-REP-11 REVIEW AND EVALUATION OF SEABROOK
PUBLIC EDUCATION MATERIALS FOR INGESTION
EXPOSURE PATHWAY

The Seabrook Plan for Massachusetts Communities indicated that this Brochure will be distributed to farmers and food processors. This Brochure will be provided along with specific written ingestion instructions to farmers, food processors and food distributors within the Ingestion Exposure EPZ as appropriate in the time of an emergency, and could serve as the Public Education Document for the entire Seabrook Ingestion EPZ. The Brochure is prepared on the basis of a joint issuance between NHY ORO, the State of New Hampshire, and the State of Maine. It contains a 24-hour information hotline and contains rumor control numbers for each organization. The document describes the means of notification for those farmers living within the plume EPZ and those farmers living between 10 and 50 miles. The document describes protective actions for persons and for farm animals; describes a process for reentry into an evacuated area in the event farmers need to return to their farms; describes the two levels of emergency actions that could be taken in the event there was measured contamination in foodstuffs, and contains advice for assisting the farmers in preparing an emergency plan for their farms.

This contains our review and evaluation of the draft Brochure "Emergency Information for Farmers," dated October 24, 1986, and marked DOC. 9526A.

The following evaluation rating scheme identifies the rating system used to evaluate Emergency Information for the Farmers Brochure:

Yes, fully meets identified criteria.

Marginally acceptable; could be improved.

Inadequate.

Insufficient information to evaluate; item should be checked for consistency with FEMA criteria or for being acceptably addressed through another medium.

NA Not applicable to this document.

This report is divided into three categories:

CATEGORY I: These items are critical to the effectiveness of a public information document. All items identified as not fully meeting the identified criteria (e.g., those items marked marginally acceptable, inadequate, or insufficient information must be improved prior to publication and distribution).

CATEGORY 2: These items are important to the effectiveness of a public information document. Items in this category identified as marginally acceptable, inadequate, or insufficient information, should be reviewed and revision considered prior to distribution.

CATEGORY 3: These items are enhancements to the overall quality of a public emergency information document. Items in this category identified as marginally acceptable, inadequate, or insufficient information, should be reviewed and revision considered prior to distribution.

Note: We have sequentially numbered the review criteria of FEMA-REP-11 in order to provide a point of reference.

CATEGORY 1

CONTENT

Evaluation Criterion

1. Document has a clear emergency focus. It should tell the reader what to expect, in what sequence. It should tell what actions, in order of priority, should be taken if notification is given.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

2. The content is consistent with the Emergency Plan and EBS messages.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

3. There is a clear statement of purpose.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

4. If the Emergency Plan calls for an emergency phone number, it is given, along with instructions on the procedures to be followed relative to its use. Be sure to distinguish "hotline" numbers for use during emergencies as separate from information numbers during non-emergency times.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

5. There is a contact given for additional information.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

6. Information is given regarding notification procedures.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

7. Identification of EBS stations is given, with stations/channels.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

8. There is a highly visible statement on the cover about keeping the document for use in the event of an emergency.

Statement

A retention statement appears on the introductory page immediately inside the front cover. There is no retention statement on the outside cover.

Recommendation: Consider including the word "READ AND SAVE" in the retention statement. Place retention statements on the front and back sides of the document.

Evaluation

Marginally acceptable.

Evaluation Criterion

9. Educational information. The very basic information on radiation must be included in the Emergency Brochure to convey a sense of health risk.

Statement

None.

Evaluation

Yes.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

Evaluation Criterion

10. Sheltering.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

11. Evacuation routes with both written explanations in the text and illustrated directions on an evacuation map of the EPZ.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

12. Transportation provisions.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

13. School provisions; including guidelines and/or instructions for parents.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

14. Instruction on the care and feeding of livestock, if appropriate, in the area.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

15. Reception Centers, Relocation and/or Congregate Care Centers.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

16. Provisions for the handicapped.

Statement

None.

Evaluation

Not applicable.

ORGANIZATION

Evaluation Criterion

17. The Emergency Instructions occupy a highly visible place in front of the document.

Statement

The location of the information on radiation and its effects delays the presentation of important Emergency Information.

Recommendation: Change the location of the information on radiation and its effects.

Evaluation

Inadequate.

Evaluation Criterion

18. The information is logically sequenced.

Statement

The order of presentation is not appropriate. See above comment.

Recommendation: Revise the order of the information in the document.

Evaluation

Marginally acceptable.

Evaluation Criterion

19. Information is clearly organized and relevant to the purpose of providing emergency guidance.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

20. Public education passages, if included, are not distracting.

Statement

The bulk of educational information appropriately follows the emergency action sections. However, the order of presentation of the sections "about safety at Seabrook" and "About Radiation" distracts and interrupts the presentation of more vital instructions and information.

Recommendation: Reposition the referenced page elsewhere in the document.

Evaluation

Marginally acceptable.

COMPREHENSION FACTORS**Evaluation Criterion**

21. The document layout is such that the text is easy to follow from paragraph to paragraph and from page to page. Page and section breaks are consistent with the logic and organization of the material.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

22. The information is presented in such a way that there is a logical sequence of topics. The "flow" of information is smooth and not disjointed.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

23. Within a given topic, actions to be taken come first, followed by rationale or explanation.

Statement

Generally, this is true in those sections that provide Emergency Instructions for the farmer.

Recommendation We recommend that the appropriate order of sections be reviewed and revised to ensure that vital Emergency Instructions precede other information.

Evaluation

Marginally acceptable.

Evaluation Criterion

24. Vocabulary is simple, comprised of nontechnical terms likely to be found in the vocabularies of the intended population.

Statement

The vocabulary could be simplified. The use of certain agricultural terms is unavoidable and such terms should be familiar to farmers and food processors. However, there are many difficult terms that could be replaced with simpler word choices.

Recommendation: Review and revise vocabulary with simpler word choices. This restructuring of the text would significantly improve the readability of the document.

Evaluation

Yes.

Evaluation Criterion

25. Sentences are brief and concise.

Statement

Some sentences could be shortened and simplified.

Recommendation: Restructure sentence length. This effort would enhance readability and emergency utility.

Evaluation

Yes.

Evaluation Criterion

26. Typography is legible and easy to perceive.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

27. The cover clearly states that the document contains important Emergency Instructions.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

28. The choice of colors is appropriate for color-blind individuals.

Statement

Since the draft document was in black and white Xerox copy, it is impossible to judge how colors will be used.

Recommendation: We recommend the selection of colors that will enhance the readability of the document.

Evaluation

Insufficient information.

Evaluation Criterion

29. The reading is appropriate. This is based on one of the following:

Statement

A Dale-Chall evaluation of readability indicated that the entire Emergency Procedures Section of the document has a reading level of Grade 11-12 or above, as characterized by the Dale-Chall readability formula.

Recommendation: As mentioned elsewhere, restructure text, vocabulary, and sentence length. Target readability for grade 9 or below. Unfortunately, the current reading level of many of the passages may present problems for marginal readers and hamper the emergency utility of the document.

Evaluation

Inadequate.

CATEGORY 2

CONTENT

Evaluation Criterion

30. Information is given regarding Emergency Action Levels, and enough educational information on radiation is given to provide an understanding of sources and relative effects, or provision is made in a separate document.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

31. Information has been provided for transients and visitors appropriate means.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

32. A meeting of identifying special needs has been provided in such a way that it cannot be lost during shipment or during the initial reading.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

33. Consideration has been given to needs of the special populations.

Statement

This document has been specifically prepared to address the needs of a particular population, farmers.

Recommendation: None.

Evaluation

Yes.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

Evaluation Criterion

34. Respiratory protection.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

35. Radioprotective drugs (if adopted by State or local government agencies for use by the general public).

Statement

There is no mention made of the use of radioprotective drugs for the General Public, which is in agreement with current State(s) policies.

Recommendation: None.

Evaluation

Not applicable.

Evaluation Criterion

36. Encouragement to alert by means other than the telephone to ensure that they also heard and understood the warning signals.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

37. Emergency supplies checklist to have in the home.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

38. Supplies checklist for use in the event of evacuation.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

39. Home preparation for sheltering.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

40. Home preparation for evacuation.

Statement

None.

Evaluation

Not applicable.

ORGANIZATION

Evaluation Criterion

41. General educational material, if included, is placed after the Emergency

Procedures Information.

Statement

Generally, the reverse is true. See comments on "About Safety at Seabrook" and "Radiation Effects."

Recommendation: Revise order of presentation.

Evaluation

Inadequate.

COMPREHENSION FACTORS

Evaluation Criterion

42. The cover design encourages one to open the publication and to read what it contains.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

43. The format is appropriate for the Emergency Information included in the document, and the size is appropriate.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

44. Photographs, maps, charts, tables and artwork are used effectively to enhance the text and are not distracting.

Statement

The draft contains many blank spaces yet to be filled in with phone numbers, page number references, charts and diagrams. This made it difficult to make a complete and accurate evaluation of the document.

Recommendation: Develop appropriate charts, tables, maps and artwork.

Evaluation

Yes.

Evaluation Criterion

45. The various elements of graphic design work together harmoniously to achieve the desired affect.

Statement

The draft contains many blank spaces yet to be filled in with phone numbers, page number references, charts and diagrams. This made it difficult to make a complete and accurate evaluation of the document.

Recommendation: Develop appropriate charts, tables, maps and artwork.

Evaluation

Yes.

CATEGORY 3

CONTENT

Evaluation Criterion

46. The document contains the date of issue and the name of the issuing agency.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

47. Document contains blank space in the Emergency Procedures Section for personal notes.

Statement

None.

Evaluation

Not applicable.

Evaluation Criterion

48. Document contains a section on family preplanning.

Statement

None.

Evaluation

Yes.

COMPREHENSION FACTORS

Evaluation Criterion

49. Key symbols or graphic images are used to assist the reader in locating and/or understanding the text.

Statement

See earlier comments.

Recommendation: We recommend the use of graphic symbols to visually reinforce textual material.

Evaluation

Insufficient information.

Evaluation Criterion

50. The format encourages retention.

Statement

None.

Evaluation

Yes.

Evaluation Criterion

51. Color has been used effectively to enhance and highlight important details relative to the Emergency Information.

Statement

Color use cannot be judged at this time.

Recommendation: See comments under Category I, Comprehension Factors, choice of colors.

Evaluation

Insufficient information

The issues identified in this attachment (rating of "Inadequate") are sufficient to warrant a rating of Inadequate under NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 1, Planning Standard G. We do request that those items rated "Inadequate," "Marginally Acceptable," or "Insufficient Information" be satisfactorily addressed before the revision and distribution of the document. We will expect the opportunity to review proposed drafts to ensure that these items are satisfactorily addressed before publication and distribution.