JUN 2 2 1982

Docket No. 50-293

Boston Edison Company M/C Nuclear
ATTN: Mr. William D. Harrington
Senior Vice President, Nuclear
25 Braintree Hill Office Park
Braintree, MA 02184

Gentlemen:

Subject: Emergency Preparedness Appraisal 50-293/81-15

To verify that licensees have attained an adequate state of onsite emergency preparedness, the Nuclear Regulatory Commission is conducting special appraisals at each power reactor site. The objectives of the appraisal at each facility are to evaluate the overall adequacy and effectiveness of emergency preparedness and to identify areas of weakness that need to be strengthened. We use the findings from these appraisals as a basis not only for requesting individual licensee action to correct deficiencies and effect improvements, but also for effecting improvements in NRC requirements and guidance.

During the period of July 13-24, 1981, the NRC conducted an appraisal of the emergency preparedness program for the Pilgrim Nuclear Power Station. Areas examined during this appraisal are described in the enclosed report (50-293/81-15). Within these areas, the appraisal team reviewed selected procedures and representative records, inspected emergency facilities and equipment, observed work practices and interviewed personnel.

The findings of this emergency preparedness appraisal indicate that certain corrective actions are required in your emergency preparedness program. These are discussed in Appendix A "Significant Emergency Preparedness Findings."

Other areas needing improvements are discussed in Appendix B, "Emergency Preparedness Improvement Items."

In conjunction with the aforementioned appraisal, emergency plans for your facility were reviewed by the Emergency Preparedness Licensing Branch, Division of Emergency Preparedness, Office of Inspection and Enforcement. The results of this review indicate that certain deficiencies exist in your emergency plan. These are discussed in Appendix C, "Emergency Preparedness Evaluation Report."

We recognize that an explicit regulatory requirement pertaining to each item identified in Appendices A, B, and C may not currently exist. Notwithstanding this, you are requested to submit a written statement within thirty (30) days of the date of this letter, describing your planned actions for improving each of the items identified in Appendix A and the results of your consideration of each of the items in Appendix B. This description is to include, (1) actions which have been taken, (2) actions which will be taken, and (3) a schedule for

FE 35

HQ concurrence received from Dan Neil by telephone on 6/18

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RI:DEPOS	RI:DEPOS	RI:DPRP	RI:DEPOS
Crocker	Snyder	Starostecki	Smith
6/16/82	6/16/82	6/21/82	6/18

completion of actions for each item. With regard to Appendix C, you are requested to provide to this office within 120 days of the date of this letter, page changes to the emergency plan correcting each deficiency or provide written justification as to why you believe a revision should not be made. Copies of these changes are to be submitted in accordance with the procedures delineated in Section 50.54(q), Part 50, Title 10, Code of Federal Regulations.

This is to inform you that if the deficiencies listed in Appendix A are not corrected within 120 days from the date of this letter, the Nuclear Regulatory Commission will determine whether enforcement action is appropriate.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room unless you notify this office, by telephone, within ten days of the date of this letter and submit written application to withhold information contained therein within thirty days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1). The telephone notification of your intent to request withholding, or any request for an extension of the 10 day period which you believe necessary, should be made to the Supervisor, Files, Mail and Records, USNRC Region I, at (215) 337-5223.

The reporting requirements contained in this letter affect fewer than ten persons and therefore are not subject to Office of Management and Budget clearance as required by PL 96-511.

Should you have any questions concerning this appraisal, we will be pleased to discuss them with you. Should you have any questions concerning the items of Appendix C, please contact Mr. R. Van Niel, Emergency Preparedness Licensing Branch at (301) 492-4535.

Sincerely,

Original Signed By:

George H. Smith, Director
Division of Emergency Preparedness
and Operational Support

Enclosures:
1. Appendix A, Significant Emergency Preparedness Findings
2. Appendix B, Emergency Preparedness Improvement Items
3. Appendix C, Emergency Preparedness Evaluation Report
4. NRC Region I Inspection Report Number 50-293/81-15

cc w/encl:
A. V. Morisi, Manager, Nuclear Operations Support
R. D. Machon, Nuclear Operations Manager - Pilgrim Station
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Massachusetts (2)

bcc w/encl:
Region I Docket Room (with concurrences)
Chief, Operational Support Section (w/o encls)

RI:DEPOS
Crocker:hh
6/11/82

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APPENDIX A

SIGNIFICANT EMERGENCY PREPAREDNESS FINDINGS

Based on the results of the NRC's appraisal of the Pilgrim Nuclear Power Station Emergency Preparedness Program conducted July 13-24, 1981, the following improvements are required: (References are to sections in the NRC Region I Inspection Report No. 50-293/81-15).

1. Revise the description of the onsite emergency organization to provide for all emergency functions required during the initial and augmentation phases of emergency response, to include: the minimum staffing requirements of NUREG-0654, Rev. 1, Criterion B.5; a sufficient level of detail to completely and unambiguously delineate the command hierarchy, reporting chains, and functional interrelationships down to the working level; and the relationships between normal job assignments and emergency tasks. (Section 2.1)

2. Identify emergency response tasks that are not part of the assigned person's normal duties and demonstrate their ability to perform these tasks during practical exercises. (Section 3.1)

3. Provide training for offsite support agencies including (Section 3.2):

   a. onsite and radiological training for the Plymouth Fire Department personnel and for the officers of the Kingston and Duxbury Departments;

   b. onsite and interface training for Plymouth Police personnel; and

   c. briefing of plume EPZ protective action decision makers, including fire and police officials, on protective actions as they relate to plant conditions.

4. Provide dedicated equipment and supplies, including communication equipment, at the AEOF as required for smooth and timely transfer of emergency operations, including command and control functions, to the AEOF, should evacuation of the primary EOF be required. (Section 4.1.1.4)

5. Review emergency plans and procedures for handling liquid wastes generated before and as a result of an accident, to clarify the scheme of handling these liquids, to identify the situations when liquid sampling and analysis would be necessary, and to provide for the required equipment sampling, and analytical procedures. (Section 4.1.1.8)

6. Evaluate the availability of facilities and resources in the vicinity of the site which could be used for the administrative and logistical support by the expanded support organization (corporate, contractor, and nonlicensee personnel) in the event of a large-scale response to an emergency situation, and incorporation of such facilities into the Emergency Plan and implementing procedures. (Section 4.1.3)

7. Provide dedicated instruments and supplies needed for operations of the OSC or assure through a system of management controls that such instruments and equipment are maintained at or above established minimum inventory levels and are available and operable for emergency use. (Section 4.2.1.1)

8. Re-evaluate the emergency response needs for SCBA devices and provide sufficient, appropriately located SCBA equipment, including spare tanks for emergency use. (Section 4.2.2.1)

9. Evaluate the equipment needs including SCBA devices for supporting repair and corrective action teams and the positioning of this equipment at specified locations for emergency use by the teams. (Section 4.2.4)

10. Evaluate the availability of vehicles, appropriate for various climatic and road conditions, equipped with appropriate radio communications for use during emergencies by monitoring teams and assure that such vehicles will be readily available for emergency use. (Section 4.2.6)

11. Provide EALs which address all the pertinent Initiating Conditions contained in Appendix 1 of NUREG-0654 and include specific and observable control room instrument readings for each EAL corresponding to the respective Initiating Condition. (Section 5.2.2)

12. Revise the offsite notification procedures to specify protective action recommendations in the notification messages, and reconcile contradictory messages. (Section 5.4.1)

13. Expand the assessment scheme to include post-accident sample results and provisions to project offsite dose rates or doses if effluent monitors are offscale or inoperable. (Section 5.4.2)

14. Provide recommended protective actions based on actual and projected core/containment conditions and offsite factors which may impact on the effectiveness of the recommendations and consider the near site population. (Section 5.4.2)

15. Incorporate onsite monitoring capability into the Emergency Plan and procedures to include the required survey maps, instrumentation, and assignment of personnel. (Section 5.4.2.2)

16. Incorporate in-plant survey capability into the Emergency Plan and procedures to include the necessary survey forms, high radiation precautions, protective equipment, instruments, and assignment of personnel. (Section 5.4.2.3)

17. Develop monitoring and decontamination procedures that include decontamination action levels as a function of background and instruments; action levels for further assessment; monitoring large groups of potentially contaminated persons; and include the reassembly area. (Section 5.4.3.4.)

18. Develop procedures for use during emergencies which describe the concept of operations of the emergency repair and corrective action teams, including reporting chains and precautions appropriate for the situation. (Section 5.4.5)

19. Develop coordination between the PNPS site and the NRC to assure appropriate interface of the respective emergency organizations during an emergency (Section 6.1)

20. Provide dissemination and posting of site-specific emergency response information to the public, including all segments of the plume EPZ transient population (beach, motel, etc.) in a form that is likely to be available in the event of an emergency, and which includes a discussion of the relationship of accidents to protective actions and improvised methods for obtaining respiratory protection. (Section 6.2)

APPENDIX B

EMERGENCY PREPAREDNESS IMPROVEMENT ITEMS

Based on the results of the NRC's appraisal of the Pilgrim Nuclear Power Station Emergency Preparedness Program conducted July 13-24, 1981, the following items should be considered for improvement: (References are to sections in the NRC Region I Inspection Report No. 50-293/81-15)

1. Revise the Position Descriptions for the site Emergency Planning Coordinator and his assistants to reflect the actual performance of emergency preparedness functions. (Section 1.1)

2. Establish selection/qualification criteria for key personnel responsible for emergency planning (e.g., corporate and site EPCs). (Section 1.4)

3. Develop training programs to enable the corporate and site EPCs to meet qualification criteria and maintain a state-of-the-art knowledge of emergency planning matters. (Section 1.4)

4. Resolve conflicts in the notification responsibilities of the BECO Recovery Organization and the Emergency Director. (Section 2.2)

5. Ensure that training/retraining of emergency response personnel is conducted on major changes in emergency equipment, facilities and procedures prior to their implementation. (Section 3.1)

6. Include the Recovery Organization training in the PNPS Training Manual. (Section 3.1)

7. Provide annual training of general employees on their response during radiological emergencies to include expected conditions during emergencies, protective actions, locations of remote assembly areas and site evacuation. (Section 3.1)

8. Ensure that all personnel who are assigned emergency functions, have been trained/qualified for those functions prior to their assignment on the emergency rosters. (Section 3.2)

9. Provide clear access to the area map in the Control Room and for a map with standard directional sector and plume EPZ markings. (Section 4.1.1.1)

10. Provide KI in the Control Room. (Section 4.1.1.1)

11. Relocate the interim TSC to a location providing adequate space and work environment. (Section 4.1.1.2)

12. Reduce the noise levels in the Emergency Director's EOF work area. (Section 4.1.1.4)

13. Provide detailed road maps in the EOF for aid in field monitoring team direction. (Section 4.1.1.4)

14. Evaluate the use of the Training Building for an onsite assembly area for non-essential personnel. (Section 4.1.2.1)

15. Relocate the assembly monitoring area for the shorefront area evacuees beyond the immediate area of the plant and relocate the reassembly area for plant nonessential personnel (Route 3A and Rocky Hill Road) to an area beyond the immediate area of the plant that will not interfere with response activities or dismissal of these personnel so they can be integrated into the offsite evacuation/protective action plans. (Section 4.1.2.1)

14. Clean and provide essential supplies at the medical facility at the EOF and correct the drainage problem in the decontamination showers. (Section 4.1.2.2)

17. Provide supplies and equipment for decontaminating personnel at reassembly areas and for vehicles prior to their release from the Pilgrim site. (Section 4.1.2.3)

18. Provide adequate supplies in emergency kits and centers to meet the needs during an emergency to include sufficient numbers of self-reading dosimeters and TLDs for emergency response personnel and personnel responding from off site to the centers; procedures at the HP Control Point; and means of airborne radioiodine detection and measurement within the security perimeter. (Section 4.2.1.1)

19. Resolve detector siting and exposure deficiencies in the meteorological program consistent with the criteria set forth in Regulatory Guide 1.23 and good engineering practice. (Section 4.2.1.4)

20. Identify and incorporate techniques into the dose calculational methodology to compensate for the potential uncertainties associated with plume trajectories as a result of the influence of terrain effects. (Section 4.2.1.4)

21. Provide dedicated voice communication links between the OSC and the Control Room and between the OSC and the TSC, and provide readily available radio equipment for use by the OSC staff. (Section 4.2.3)

22. Provide phone numbers for the onsite emergency centers in the offsite emergency monitoring kits and to the switchboard operator. (Section 4.2.3)

23. Review each of the alarm, abnormal occurrence, and emergency operating procedures and for those which lend themselves to ready classification, incorporate initial emergency classification statements into the procedures. (Section 5.2.1)

24. Develop and implement a system for use by the control room staff to aid in promptly classifying events. (Section 5.2.1)

25. Revise the dose projection procedures to include the uncertainties associated with wind direction; estimation of release durations; impact of transport time and plume centerline location; and trend analyses of assessment data. (Section 5.4.2)

26. Provide labels for each sample that include all the information necessary for subsequent analysis and use of results. (Section 5.4.2.1)

27. Revise the communication procedures to ensure correct transmission. (Section 5.4.2.1)

28. Provide further drills/training to reduce the time to accomplish accountability. (Section 5.4.3.3)

29. Include the first-aid supplies, instruments, equipment, precautions, and dosimetry used for handling and treating contaminated injured personnel in the Medical Procedures. (Section 5.4.3.5)

30. Clarify in the recovery procedures and Emergency Plan, the organizational authority responsible for the decision to enter the recovery phase. (Section 5.4.6)

31. Include the generator gasoline supply in the inventory procedures. (Section 5.5.1)

32. Revise Procedure 5.8.1, "Drills and Exercises," to define the scope of the annual exercise, to provide for backshift drills, and to provide for submitting annual exercise objectives and scenario to the NRC on a schedule which would permit timely comments and incorporation of recommendations into the exercise. (Section 5.5.2)

33. Provide distribution and control of procedures at the alternate EOF and Information Center; provide annual review of the Series 23 Nuclear Operations Support Procedures; and ensure that changes in equipment, facilities, or method of operation are not implemented until the procedures have been revised, reviewed, approved, and distributed. (Section 5.5.3)

34. Provide routine audits of the Recovery Organization Plan, procedures and their implementation, and the observation of drills and exercises. (Section 5.5.4)

35. Develop agreements with offsite agencies to assure the availability of appropriate equipment and supplies such that these support agencies are equipped to fulfill their requested support roles; maintain current letters of agreement; and provide a summary document to offsite officials that describes their respective roles, points of contact, etc. (Section 6.1)

36. Provide a procedure for the annual press familiarization program and include provisions for discussion of protective actions that may be recommended during an emergency and the bases for these recommendations. (Section 6.3)

APPENDIX C

EMERGENCY PREPAREDNESS EVALUATION REPORT
BY THE
DIVISION OF EMERGENCY PREPAREDNESS
OFFICE OF INSPECTION AND ENFORCEMENT

IN THE MATTER OF

PILGRIM STATION
DOCKET NO. 50-293

FEBRUARY 1982

INTRODUCTION

Evaluation by the Nuclear Regulatory Commission (NRC) of the state of emergency preparedness associated with the Pilgrim I Nuclear Station involves review of the licensee's emergency preparedness and the Federal Emergency Management Agency's (FEMA) findings on State and local radiological emergency preparedness. This evaluation addresses the licensee's Emergency Plan. Supplement(s) to this evaluation will address the findings and determinations of FEMA on the adequacy of the State and local emergency response plans and the NRC staff's overall conclusions on the status of emergency preparedness association with Pilgrim I.

The Plan was reviewed against the criteria of the sixteen planning standards in 10 CFR 50.47, the requirements of 10 CFR 50, Appendix E, and the specific criteria in NUREG-0654/FEMA-REP-1, Rev. 1, entitled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans Preparedness in Support of Nuclear Power Plants," November 1980.

The Boston Edison Company (hereinafter referred to as the licensee, the company, BECO) filed on April 10, 1981, with the Nuclear Regulatory Commission, "The Pilgrim I Nuclear Power Station Emergency Plan" (hereinafter referred to as the Plan).

On June 1, 1981 the licensee submitted, in response to NRC Generic Letter 81-10, a description of the Pilgrim minimum staffing and emergency response facilities (hereinafter referred to as the June 1, submittal). On June 5, 1981 the licensee submitted a description of their proposed prompt alerting and notification system. In addition on January 7, 1982 the licensee requested an extension of the system implementation date to April 15, 1982.

The Pilgrim reactor is located on Cape Cod Bay within the township of Plymouth, Mass. The Plume Exposure Emergency Planning Zone included portions of the townships of Plymouth, Duxbury, Kingston, Carver, and Marshfield. The Ingestion Pathway Emergency Planning Zone includes the States of Massachusetts and Rhode Island.

Section I of this report provides for each 10 CFR 50.47 planning standard a summary of applicable portions of the Plan as they apply. Section II provides our conclusions.

EVALUATION OF LICENSEE EMERGENCY PLAN

I. EVALUATION

A. Assignment of Responsibility (Organization Control)

When an emergency condition arises, the Watch Engineer is designated as the Emergency Director. It is his/her responsibility to evaluate the situation. If, in his/her judgment, conditions meet or exceed any of the emergency classification action levels, it is his/her responsibility to implement the Plan.

The Emergency Director, in implementing the Plan, classifies the emergency, ensures that the required notifications are made and activates larger portions of the emergency organization as warranted.

The Massachusetts Department of Public Health (MDPH) is the primary point of contact at the State level. MDPH is supported by the Nuclear Incident Advisory Team (NIAT). The NIAT will be dispatched to the plant site to assist in the monitoring and assessment activities.

The Town of Plymouth Office of Emergency Preparedness (OEP) will be notified of any protective actions required by MDPH through State and town police.

The Plymouth OEP Director is responsible for implementing the emergency plan for the Town of Plymouth. There is a 24-hour-a-day communication link between the plant and the Plymouth OEP and Plymouth Police Department.

The Plan does not describe the concept of operations of the other towns within the plume EPZ or the concept of operations of the State of Rhode Island as it relates to the ingestion pathway protective response.

The Recovery Manager is responsible for 24-hour manpower planning during emergencies; however, he is not normally on site.

The State and local plans submitted by the licensees were drafts.

The Plan does not describe the interface with NRC Region I response personnel.

The following require resolution:

1. Submit to the NRC approved State and local plans.

2. Specify the interface with the State of Rhode Island for dealing with the ingestion pathway.

3. Specify the concept of operations of all the towns within the plume EPZ to demonstrate 24-hour-a-day protective action decisionmaking and communications capabilities. Each step in protective action decision making and implementation, for the entire plume EPZ, should

be described in the Plan along with 24-hour communications capabilities (see Section E).

4. Provide 24-hour onsite emergency manpower planning.

5. Describe the interface with NRC Region I.

B. Onsite Emergency Organization

The Watch Engineer, designated as the Emergency Director, has the responsibility and authority to implement the Plan and initiate any necessary emergency actions, and has the authority and responsibility to immediately and unilaterally provide protective action recommendations to the Director of the Radiation Control Unit, Massachusetts Department of Health and/or local public health officials absent a gubenatorial declaration of emergency. However, neither the Plan nor the procedures define "absent a gubenatorial declaration." There is no clear commitment that all the local officials responsible for making protective action decisions will be notified and receive protective action recommendations within 15 minutes of declaration of a General Emergency (See Section E).

The Plan states the Watch Engineer will be relieved by the designated member of the Plant Operations Review Committee (normally the Station Manager). However, Procedure 5.7.2.1, "Emergency Director," indicates that the Watch Engineer will be relieved by the Nuclear Operations Manager or one of the Deputy Station Managers. In addition, the Plan does not describe the criteria for relief of the Watch Engineer.

The operational relationship between the onsite emergency functions to include the Emergency Operations Facility (EOF), Technical Support Center (TSC), Control Room and Operational Support Center (OSC) is illustrated in Plan Figure N.5-4.

The Plan identifies and describes the authority, responsibilities and duties of emergency organization personnel and identifies the personnel, by expertise, assigned to the TSC and OSC. The Plan describes the functions of the emergency teams and specifies that lists of qualified team personnel will be maintained. Specific personnel are not assigned to perform repair and corrective actions; however, these personnel can be obtained from the OSC staff. Other than the Emergency Director and monitoring teams, the staffing of the EOF is not described.

Plan Table N.4.3 (Emergency Manpower Availability) attempts to show, by emergency role, the personnel available as a function of time; however, the table appears to contain double counting and has the unidentified term "back up." Table N.4.3 does not show manning by specific emergency function or the relationship of the backshift minimum staff, by job title, to their emergency assignments. The table does not address the emergency functions specified in NUREG-0654, Table B-1, or the other emergency functions identified in the Plan.

The Plan does not discuss how backshift personnel will be assigned to perform the following tasks that may require during the initial response to classify the event, determine onsite protective actions, or to determine the protective actions to be recommended offsite (also see Section I):

- inplant monitoring,
- determination of airborne iodine levels (onsite protective actions) or release fraction (offsite protective action recommendations),
- plume tracking over Cape Cod (protective action recommendations for Cape Cod),
- monitoring of evacuees (plant/public),
- monitoring if stack/containment instruments are offscale or inoperable, and
- offsite monitoring.

The Plan also states that the normal backshift is composed of a minimum of seven personnel but does not identify their positions, titles or relationship to emergency duties. The June 1 submittal showed a minimum on-shift staff of eight. The June 1 submittal minimum "onsite shift" is deficient by one Communicator and one Rad/Chemistry technician in comparison with the requirements of NUREG-0654, Table B-1.

In addition, the manpower response times in the June 1 submittal were provided according to normal job descriptions and were not related to emergency functions, specific position title or expertise. This does not allow for an evaluation of compliance with the 30- and 60-minute manpower requirements of NUREG-0654. Neither the June 1 submittal nor the Plan described how the response capability will be demonstrated, maintained, or implemented.

The Plan specifies that the onsite emergency organization will be activated for Site and General Emergencies and as needed for Alerts and Unusual Events.

The Boston Edison Company (BECO) recovery organization will be activated when events that have the potential to affect offsite areas are identified. The recovery organization will be located at the BECO corporate office in Boston, Massachusetts. The BECO recovery organization has responsibility for notifying emergency support groups such as the NSSS or A/E vendors. The recovery organization will also provide additional personnel and technical assistance from offsite company sources as well as logistic and legal services at the request of the Emergency Director.

The Plan states that the recovery organization will be responsible for notification of various governmental agencies and that, in the event of an emergency, MDPH may be notified by the Recovery Manager. However, these responsibilities are also assigned to the Emergency Director.

Written agreements with Federal, State and local organizations which provide medical transportation, medical treatment, fire protection, meteorological data, police response and radiological supplies are provided in the Plan. However, these agreements are not noted to show they were up-to-date and did not delineate the authority and limits of action on site of police and fire organizations. The agreements with The Burns Institute, which apparently has responsibility for long-term care of injured contaminated personnel, is only referenced and not provided or described.

The following require resolution:

1. Resolve the conflicting assignment of personnel as Emergency Director.

2. Provide the criteria for transfer of the Emergency Director function (e.g., briefing of replacement).

3. Describe the functions, responsibilities and composition of all the groups assigned to the EOF to include environmental assessment and communications.

4. Clearly define, by job title, the emergency functions, duties and tasks assigned the backshift. This must include the functions identified in Table B-1 and other functions that may be required immediately in response to an emergency.

5. Define by emergency function, specific position title or expertise of the augmentation personnel to clearly demonstrate and commit to augmentation to the levels specified by NUREG-0654, Criterion B-5.

6. Describe how the ability to meet the augmentation time standards will be demonstrated (e.g., drills); the system to be used to ensure this capability is maintained and the procedure used to implement augmentation (e.g., duty rosters, beepers, etc.).

7. Provide clarification of the relationship of the BECO recovery organization with offsite organizations to demonstrate that the EOF (once activated) and Control Room will be the primary points of interface with offsite authorities with protective action responsibilities.

8. Commit to contact and provide protection action recommendations to all offsite officials responsible for protective action implementation within 15 minutes of declaration of a General Emergency.

9. Clarify how augmentation personnel are assigned to emergency functions as they arrive onsite (e.g., tag board).

10. Certify that the letters of agreement are up to date.

11. Provide letters of agreement with the Plymouth Fire and Police Departments that discusses their authority on site.

12. Provide for activation of the TSC during Alerts.

C. Emergency Response Support and Resources

Provisions have been made to accommodate representatives from Federal, State, and local government organizations and from contractor and other support groups at the Emergency Operations Facility (EOF). The EOF will be the central location and analysis of monitoring data and interface with office response officials.

Requests for support under the Federal Radiological Monitoring and Assessment Plan will be coordinated through the MDPH or the BECO Recovery Emergency

Coordinator. A written agreement with the Department of Energy pertaining to the Federal Response has been provided.

A licensee representative will be sent to the primary state EOF if requested.

In the event of an emergency, the licensee has access to offsite radiation laboratories through the Yankee Atomic Electric Company with capability to analyze terrestrial, marine and air samples.

The Plan summarizes the contracted services available in emergencies to include engineering, consulting, environmental monitoring and decontamination.

D. Emergency Classification System

The four standard emergency classes (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency) have been established by the licensee and State and local agencies. The licensee has established a fifth class "Personnel Emergency" which deals solely with noncontaminated injuries.

The Plan contains a set of Emergency Action Levels (EALs) that will be used to initiate emergency designation, notifications and mobilization. The on-duty Watch Engineer, initially acting as the Emergency Director, has the ultimate responsibility to initially classify and declare emergency conditions based on the EALs. The EALs address most, but not all, of the appropriate Example Initiating Conditions in NUREG-0654, Appendix 1, and in some cases the EALs provided are not in sufficient detail or are ambiguous (this is discussed in detail in the Pilgrim Appraisal Report). EALs have been developed based on selected plant system indicators end effluent monitors. EALs have not been developed for field monitoring results or containment radiation levels. The containment radiation monitor was not installed until January 1, 1982 and no EALs using this monitor are provided. In addition, EALs used to determine effluents if monitors are offscale or inoperable have not been developed.

The following items require resolution:

1. Provide observable EALs to address all the appropriate NUREG-0654 Example Initiating Conditions.

2. Expand some EALs to include specific instrument parameters.

3. Develop and incorporate into the Plan, EALs based on containment radiation levels.

4. Provide EALs based on field monitoring results and on the methods used if the effluent and containment monitors are inoperable or offscale.

E. Notification Methods and Procedures

The Plan establishes and describes a notification and verification system for alerting and mobilizing onsite, State and Town of Plymouth emergency personnel during Alerts, Site and General Emergencies. Plan Figure N.5-5 shows the emergency notification decision tree. Plan Figure N.5-6 shows the "first-line" notifications to be made for Alerts and Site General Emergencies. The initial

notification to first line" agencies will be made within 15 minutes of the Emergency Director declaring a radiation emergency. However, none of the "first-line" contacts are clearly responsible for offsite protective action decisionmaking. NUREG-0654, Appendix 3 states that the Plan must include "The specific organizations or individuals by title, who will be responsible for notifying responsible organizations and the affected population and specific decision chains for rapid implementation of alerting and notification decision." The Plan does not specify the decisionmaking chains for the towns within the plume EPZ. Appendix 3 also requires that 24-hour communication be provided, but since the decisionmaking chains are not fully described, this capability is not demonstrated (see Section B). A responding MDPH or NIAT team member will determine the extent and nature of the protective measures to be taken in offsite areas. A responding MDPH official has the authority to order implementation of protective actions.

A review of the Massachusetts State Plan and the emergency plans for the towns within the plume EPZ, and discussions with local officials indicate that the following steps are required for offsite authorities to implement protective actions recommended by the licensee:

1. Pilgrim Station Control Room notifies Massachusetts State Police.

2. State Police notify MPHD Duty Officer.

3. MPHD calls the site to determine situation and protective actions recommended (not clear who makes the protective action decision).

4. Once a decision has been made MPHD relays the recommendation to the State Police.

5. State Police notifies town police of the recommendations.

6. Town police implement protective actions.

It is not clear that the MPHD Duty Officer has the authority and responsibility to recommend protective actions to the towns, and the State Plan does not contain provisions for assessing recommendations based on plant conditions or recommendation of immediate evaluation.

This sequence of steps does not demonstrate that protective action decisions can be made within 15 minutes of the recommendation by the site for situations requiring urgent action (e.g., immediate evacuation).

Notification to offsite agencies of an Unusual Event will occur through normal reporting channels and will be completed within 1 working day.

The Plan states that the Emergency Director will activate larger portions of of the entire (emergency) organization as warranted for the emergency situation. For Site and General Emergencies the entire (site) emergency organization is activated.

During the day shift the Watch Engineer uses the plant P.A. system to activate emergency teams. On backshifts, the Security Supervisor notifies off duty licensee personnel assigned to emergency duties. Key station personnel living

in the Town of Plymouth are notified first in order to activate the emergency teams in the shortest possible time.

The plan does not describe how the ability to augment to the levels required by NUREG-0654, Table B-1, will be demonstrated.

On the backshift the Station Manager or his alternate will relieve the Watch Engineer as Emergency Director. The Station Manager is contacted by a pages and/or radio equipped vehicle. The plan does not describe how the availability of other key emergency response management will be insured.

The initial offsite notification of Alert, Site and General Emergencies and followup messages will provide as much of the following information as is available:

a. nature of incident,

b. plant conditions at the time of the incident,

c. estimate of current or projected releases of radioactive materials from the site,

d. estimate of expected duration of radiation release,

e. wind direction and speed,

f. projections of offsite radiological condition,

g. estimate of projected whole-body and thyroid dose, and

h. recommended protective actions (should conditions warrant).

The Massachusetts State Plan contains a list of information, to be provided by the licensee, that is different than that listed above.

The licensee's January 7, 1982 submittal requests that the implementation date for the establishment of the administrative and physical means for notification and providing prompt instructions to the public within the plume EPZ be extended to August 15, 1982.

The Plan and licensee submittals did not document that any of the following elements are in place:

- prompt recommendations of offsite protective actions,
- recommendation of offsite protective measures based on plant conditions to include evacuation of 2 miles around the site for core-melt conditions (see Section J),
- prompt offsite protective action decision making by offsite officials (see Section J),
- prompt alerting system (extension requested to April 1981),

- prompt (15-minute) radio/TV broadcast capability,

- distribution and posting of public emergency information (see Section G), and

- written messages for broadcast on public protective actions. The Massachusetts Plan does contain public emergency messages but they do not provide instruction on the protective actions to be taken.

The following require resolution:

1. Commit to notify offsite officials within 15 minutes of declaration of Unusual Event.

2. Commit to notify the local authorities with authority and responsibility for protective action decisionmaking in the plume EPZ within 15 minutes of an emergency.

3. Provide public broadcast messages that provide instruction on specific protective actions to be taken.

4. Describe the means for notification and providing prompt instructions (radio/TV) to the plume EPZ public in sufficient detail to allow evaluation against NUREG-0654, Appendix 3. This should include installation and test schedules for the warning system, as well as specific compensatory measures to be used until the system is operational.

F. Emergency Communications

The Control Room has radio communications with the MA State Police, Coast Guard, BECO Dispatcher and EOF. Dedicated telephone lines connect the NRC to the Control Room, EOF, and Alternate EOF. A dedicated telephone line is also provided between the Control Room (CR) and Plymouth Police. The State Plan shows that the State Police have radio communications with each of the plume EPZ town police. The State Police also have beeper contact with the MDPH Duty Officer. The communication chains between the site (CR/EOF) and offsite officials with protective action implementation authority is not described in the Plan. Multiple methods of communications are provided between the Control Room and the EOF. The EOF and Control Room have radio communications with the emergency teams. The TSC is shown as having only a conventional telephone connection with the EOF and Control Room. The Plan states that the Alternative EOF is provided with communications equipment but this equipment is not described.

As discussed in Section E, provisions for contacting key site emergency response personnel, other than the Station Manager, are not provided.

The following require resolution:

1. Describe adequate TSC communications.

2. Provide adequate Alternate EOF communications.

3. Describe the communications with the State of RI ingestion pathway decision makers.

G. Public Information

Occupants of the plume exposure EPZ will be provided information jointly by the State of Massachusetts and BECO on radiation, notification, and actions to be taken. This information program will include yearly review, revision and dissemination. This dissemination will be accomplished by general mailing, handout distribution and also include stockpiling of the handout material to reach the transient population. A sample of the mailout was provided in the Massachusetts State Plan and provides a self-adhesive set of brief instructions to be placed on an inside door jamb to insure that the information will be available for ready reference. The licensee will conduct seminars to acquaint the news media with the emergency plans, background information on radiation, and point of contact for release of public information. The Plan does not specify when mailing of information will take place. In addition no provisions are described for posting information or other means for providing emergency information to transients.

Public information releases will be issued with the approval of the BECO Emergency Director. The Public information Department will send representatives directly to the Information Center at Memorial Hall in Plymouth during Alert, Site and General Emergencies. Representatives will also be sent to the plant EOF to gather first hand information. The Information Center (located in same building as the Plymouth EOC) will be used by State, local and Federal public information offices to provide public news releases. The Information Center will provide access to reproduction equipment, copy equipment and television electrical connections. No provisions are made for press briefing at the EOF.

The following items require resolution:

1. Provide the date for distribution of the public information and a copy of the information once distributed.

2. Provide for posting or other means of providing information to transients during an emergency (e.g., beach goers, motels, etc.).

3. Provide for dealing with rumors.

4. Provide for EOF press briefings.

H. Emergency Facilities and Equipment

Emergency facilities needed to support an emergency response have been established to include:

1. Emergency Operations Facility (EOF). The EOF is located in five trailers NW of the main stack. The EOF contains monitoring equipment, protective equipment and a terminal to the Meteorological Data Acquisition Computer used to display meteorological data and project doses. The EOF will house licensee, State, local, Federal and vendor emergency response groups. The floor plans of the trailers

are provided in the procedures. The site Emergency Director will be located at the EOF.

The roles of the EOF are:

a. provide liaison with offsite response organizations,

b. provide a central point for the receipt and analysis of radiological field monitoring information, and

c. possibly to serve as the long-term recovery headquarters.

2. Alternate EOF (AEOF). An AEOF has been established in Bridgewater at the Massachusetts Civil Defense Agency Area 2 Headquarters about 20 miles from the site. The AEOF is manned by a site representative whenever the onsite EOF is activated to provide continuous capabilities to transfer responsibility in the event of evacuation of the EOF. The Plan states that the AEOF has communications and maps for radiological assessment and protective action determinations. However, an appraisal review of the EOF on July 16, 1981 indicated that no such communications and equipment were in the AEOF. Neither a floor plan nor a map showing its location were provided in the Plan.

3. Technical Support Center (TSC). The TSC is located on the ground floor of the main security building. The TSC has the capability to display plant status parameters via television monitor. The TSC supports the plant command and control functions throughout the emergency. The TSC personnel furnish the licensed operations staff in the Control Room with indepth diagnostic and corrective engineering assistance. The TSC will be the primary interface communications link with the Control Room. The travel time from the TSC to the Control Room is approximately 4 minutes. The Plan does not describe TSC access to plant drawings.

4. Onsite Operational Support Center (OSC). The OSC is located in the office area directly above the machine shop area. Auxiliary Operators, Health Physics Technicians, maintenance and other plant personnel are assembled in the OSC to support the emergency response. Protective clothing, respiratory equipment and other supplies are located at the H.P. office 30 seconds from the OSC; however, the Plan does not specify the supplies available (e.g., number of SCBA units). Access to damage control tools is not described. In the event the OSC becomes uninhabitable an area within the I&C labs may be designated as the alternative.

5. Information Center. An information center has been established at Memorial Hall (Plymouth). Public information releases will be coordinated with State, Federal and local officials at this Center. The center will also provide space, site maps, telephones and reproduction equipment for use by the press.

The TSC and OSC will be activated by the Emergency Director for Alert, Site Area and General Emergencies. The EOF is activated for Site Area and General Emergencies.

The June 1, 1981 submittal provides a description of the permanent emergency response facilities required to meet the NUREG-0696 requirements. This submittal is under review.

The Plan describes the following sources of information to classify events:

1. meteorological instrumentation which records wind speed, direction and temperature differences in the Control Room (this information can be accessed at the EOF),

2. radiological monitors,

3. fire detection devices, and

4. offsite laboratory facilities.

The Plan does not demonstrate how the compensatory meteorological elements specified in Appendix 2 of NUREG-0654 are met. In addition a commitment to meet the NUREG-0654, meteorological milestones is not provided.

A system of approximately 50 TLD stations consistent with the RAB Technical Position is described.

The monitoring instruments, radios, and kits for use by the on and offsite monitoring teams and personnel monitoring teams are described. These kits are stored in the EOF. The instruments and other supplies for use by the Cape Cod Bay monitoring team (Green Team), AEOF, and TSC are not described.

Emergency equipment and supplies at the Control Room, EOF, Jordan Hospital, and TLD system are inspected and inventoried each quarter. All portable instruments are inspected, inventoried and checked for operability each quarter and calibrated semiannually.

The following require resolution:

1. Describe the capabilities of the onsite laboratories.

2. Describe a meteorological program that is in compliance with NUREG-0654, Appendix 2, along with a commitment to meet the required milestones.

3. Provide reserve instruments to replace instruments removed for repair or calibration.

4. Provide backup power to the EOF.

5. Provide the AEOF with the basic equipment (tables, chairs, paper note pads, etc.) and communications required to ensure uninterrupted transfer of control in the event the EOF must be evacuated.

6. Describe the AEOF, TSC and Cape Cod monitoring team emergency equipment and supplies.

7. Provide OSC emergency supplies to support its function (SCBA units, and repair and corrective action tools).

I. Accident Assessment

The Plan provides some specific instrument readings and other observable and measurable parameters which, if exceeded, will initiate an emergency as described in Section D. The containment high range monitor levels associated with release of coolant, gap and volatile fission products into containment are calculated; however, these levels are not used as part of the accident classification system described since this instrument was not installed until January 1982.

NaI detectors and Silver Zeolite cartridges are provided to determine I-131 concentration in air. Prior to receipt of information from the field monitoring teams, dose rates offsite will be estimated from stack and other release point monitors. Isotopic release compositions for the 10 CFR 100 accident source term have been calculated along with atmospheric dispersion estimates for ground level, airborne releases and fumigation conditions. Nomograms have been developed to simplify the use of this information in determining offsite doses as a function of distance. A computer is also available in the Control Room and EOF to compile meteorological data and calculate offsite projected doses. The projected duration of the release will be determined in the Control Room based on depressurization and leak rates or if this information is not available the persistence of atmospheric condition based on historical data will be used.

The Plan states that a system is provided that will allow the capability to obtain and analyze reactor coolant samples in less than an hour under nuclear accident conditions.

There are five monitoring teams to collect samples, perform surveys, monitor plant personnel and the public, and to perform surveys over Cape Cod Bay. However, no specific provision for in-plant surveys are described. The U.S. Coast Guard has agreed to make available helicopter service for the purpose of plume tracking; however, during the onsite appraisal it was determined that this support may no longer be available.

The post-accident sampling and analysis procedures were not submitted as part of the Emergency Plan Implementing Procedures.

The following require resolution:

1. Provide meteorological data in the TSC.

2. Describe the methods for projecting doses if the release point monitors or meteorological instruments are offscale or inoperable.

3. Describe the methods of projecting containment radiation levels if the high range containment monitor is offscale or inoperable.

4. Describe the monitoring team response times (backshift) and availability of vehicles for transportation.

5. Describe the methods to determine the actual isotopic composition of the release (vs. Part 100 assumption) and to incorporate it into the dose projection methodology to include the personnel to be used, criteria for dispatch and response time.

6. Submit the post-accident sampling and analysis procedures to the NRC.

7. Provide for airborne (over Cape Cod) monitoring (to replace the U.S. Coast Guard).

J. Protective Response

If an Alert or higher emergency level is declared and the shore front is open, a pre-recorded message will be played over the recreation area public address system to advise members of the public to proceed to the entrance on Rocky Hill Road to await a monitoring team. Evacuation of all nonessential personnel, sub-contractors and visitors will be initiated immediately upon recognition of Site or General Emergency. When the Station Evacuation Alarm is sounded operating personnel will be directed to the Control Room, EOF, OSC, or TSC, all other personnel will go to the parking lot for accountability and monitoring. Evacuation will be by personnel car to the junction of Route 3A and Rocky Hill Rd (about 2 miles) where personnel will await further instructions. If the Emergency Director decides, based on accident conditions, that an alternate assembly area should be used, the personnel will be so directed; however, an alternate assembly area beyond the plume EPZ has not been designated.

The Plan states that upon declaration of a General Emergency the Emergency Director will recommend protective actions based on projected doses and the appropriate EPA PAG to the Chief of the Radiation Central Unit, MPDH for evaluation. This recommendation will be made downwind to the distance that the projected doses exceed the EPA PAGs. There is no consideration given to plant condition, evacuation times, special population (e.g., beach goers) or other factors that would impact on the selection of the most effective protective actions.

The Plan states that MDPH will determine what offsite actions are to be recommended to the Governor, who will direct the appropriate state response. The Massachusetts State Plan states that the Department of Public Health official, who receives the initial notification from the State Police (initial point of offsite contact by licensee) can recommend protective actions directly to local civil defense. However, it does not state that he will make such recommendations if conditions warrant prompt action. In addition, the State plan does not contain criteria for protective action implementations that are based on plant conditions (before release).

The plans for the EPZ towns specify that they will act only on the recommendations of MDPH and except for Plymouth do not clearly describe who has the authority to implement such recommendations. The State and local plans only provide for taking protective action based on EPA PAGs.

Upon detection of 25% of 10 CFR 20 airborne limits, the monitoring teams may be directed by Health Physics to use self-contained breathing apparatus (SCBA) or respirators. The Plan states that consideration will be given to use of a thyroid blocking agent. but the Plan does not specify who will be responsible for determining if potassium iodide (KI) will be used or the criteria to be used. The monitoring team kits and medical kit (at EOF) contain KI Tablets; however, no KI is provided for the TSC, OSC or Control Room.

The Plan does not contain a readable plume EPZ map or maps showing site evacuation routes.

The Plan does not discuss protective measures for special population (e.g., hospital/beaches).

Estimates of the protection provided by local structures are not provided or used in the protective action recommendation methodology.

Monitoring of the onsite centers and assembly areas is not described. The evacuation time estimate study states that evacuation plans for the correctional institutions and hospital within the plume EPZ are under development and as a result evacuation times for these facilities are not provided. In addition schools and camps are not considered as special populations. The evacuation time study also did not consider evacuation of people who rely on public transportation.

The following require resolution:

1. Provide for immediate evacuation of plant and shorefront area evacuees beyond the plume EPZ if conditions warrant.

2. Provide for recommending protective actions based on plant conditions that take into consideration evacuation times, special populations, and shelter available offsite. This must include provisions for recommending evacuation of 2 miles around the site and 5 miles downwind for core melt situations. Protective action recommendation must be based on the key-hole approach and not be limited only to the downwind direction.

3. Provide for recommending specific protective actions within 15 minutes of declaration of a General Emergency and for providing more detailed recommendation within a short period.

4. Demonstrate, in the Plan, the capability for prompt offsite protective action decisionmaking as required by 10 CFR 50, Appendix E for situations requiring both shelter and evacuation.

5. Specify the authority and criteria for use of thyroid blocking agent.

6. Provide KI at the TSC, Control Room, and OSC.

7. Provide onsite evacuation maps.

8. Provide for the assessment of habitability of onsite centers and assembly areas.

9. Specify emergency decontamination criteria.

10. Specify the evacuation times for correctional instituitions and hospitals in plume EPZ.

11. Include consideration of schools, camps and nursing homes as special populations in the evacuation time estimate study.

12. Include the estimated evacuation times for the public that must use public transportation in accordance with NUREG-0654, page 4-9.

13. Include map(s) showing the plume EPZ in sufficient detail to define the boundaries of the zone, hospitals, relocation centers and special populations in accordance with NUREG-0654, Appendix 4, page 4-4.

K. Radiological Exposure Control

The Emergency Director will determine the amount of exposure that will be permitted in order to perform emergency measures. The Plan provides emergency exposure guidelines which allow volunteers to receive doses under special circumstances equal to EPA gudielines for emergency workers. However, the Plan does not provide for lifesaving exposure criteria consistent with EPA guidelines. The Plan provides for a decontamination facility and specifies the action levels for decontamination. There are no commercial agricultural products or public water supplies within the exclusion area. Levels to allow unrestricted use of exclusion areas have been established. The Plan does not describe the provisions for emergency radiation work permits or other actions to be taken to control exposures.

The following require resolution:

1. Provide lifesaving exposure guidelines.

2. Describe the program for exposure control during emergencies.

L. Medical and Public Health Support

Arrangements have been made with Jordan Hospital, Plymouth, MA. and other medical groups to provide medical assistance. An onsite first-aid trailer supplied with first aid equipment is provided. Nonadministrative plant personnel are trained in first aid. An agreement has been reached with a local ambulance service for transportation of contaminated personnel. The licensee has agreed to provide health physics personnel to accompany the contaminated patients to the hospital and there is a HP Technician onsite at all times. The agreements are not clearly up-to-date, and the agreements do not describe provisions for long-term care for contaminated plant personnel. (see Section B). The Plan states that decontamination facilities and decontamination agents are available onsite. Decontamination showers and supplies are provided at the entrance to the controlled area at the EOF.

The following item requires resolution.

1. Provide for long-term care for contaminated plant personnel.

M. Recovery and Reentry Planning and Post Accident Operations

The Emergency Director and the BECO Recovery Manager have joint responsibility for determining and declaring when an emergency situation is stable and has entered the recovery phase. They shall consider the emergency under control and in the recovery phase only when the following general guidelines are met:

1. radiation levels in all in-plant areas are stable and are decreasing with time,

2. releases of radioactive materials to the environment from the plant are under control or have ceased, and

3. any fire, flooding, or similar emergency conditions are controlled or have ceased.

The Emergency Director is responsible for notification of all applicable agencies when the emergency has entered the recovery phase. The Recovery organization is directed by the Recovery Manager and is headquartered in the BECO headquarters in Boston, MA. and may move to the near site EOF. The recovery organization will provide additional personnel and technical assistance required by the Emergency Director. The Plan provides a general description of the responsibilities of key members of the recovery organization and provides a block diagram of the recovery organization structure.

The following items require resolution:

1. Provide a method for periodically estimating total population exposure and for providing this information to offsite authorities.

2. Describe how an emergency class will be reduced to include who is responsible and how this will be coordinated with offsite officials.

N. Exercises and Drills

A major radiation emergency response exercise will be conducted at least once every twelve months to demonstrate the effectiveness of the Plan. This exercise will be conducted in Site and General Emergency EAL classification and will provide for the coordinated participation of offsite emergency response organizations. The exercise scenario will be revised from year to year such that all major elements of the Plans and preparedness organizations are tested within a five year period.

Drills are supervised instruction periods aimed at testing, developing and maintaining skills. The following drills are provided for:

1. communications drills - communications with State and local governments within the plume exposure pathway EPZ will be tested monthly; communications with the Federal response organizations and State within the plume exposure pathway EPZ will be tested at least every 12 months;

2. quarterly fire drills;

3. annual medical emergency and transportation drills,

4. annual radiological monitoring drills, and

5. semiannual health physics drill.

A drill is to be evaluated by the drill instructor whereas an exercise is to be critiqued by BECO, Federal, State and local observers/evaluators. Recommendations for revision to the Plan and/or the upgrading of emergency equipment and supplies, as result of a drill or exercise, will be forwarded the Emergency Planning Coordinator by observers and participants. These recommendations will then be submitted to the Station Manager. Changes will be implemented under the direction of the Emergency Planning Coordinator.

The following require resolution:

1. Provide for a simulated radiological release resulting in offsite radiological response during the annual exercise.

2. Describe the provisions for involvement of Rhode Island, every 3 years, in an ingestion EPZ exercise.

3. Document, in the Plan, provisions for the following:

   a. communication drills with Federal emergency response organizations and States within the ingestion pathway EPZ quarterly,

   b. communication drills between site, State and local response centers, and field assessment teams annually,

   c. communication drills between NRC headquarters, NRC Region I Operations Center, Control Room, TSC, and EOF monthly,

   d. provisions to test communication, and record keeping during radiological monitoring drills,

   e. provisions for an analysis of a simulated elevated airborne and liquid sample and use of the post-accident sampling system during the health physics drills,

   f. a critique as soon as possible after the annual exercise attended by all observers, and

   g. daily tests of State/local communication links.

4. Describe provisions to test message content understanding during communication drills.

5. Provide a description of how exercises will be carried out to include scenarios that require decisionmaking and that include:

   a. basic objectives,

b. date, time, place,

c. simulated events and schedule,

d. narrative summary, and

e. description of observers' advance material.

O. Radiological Emergency Response Training

The Senior Nuclear Training Specialist has overall responsibility for implementation of emergency preparedness training.

The training program provides for general orientation training for all classes of personnel working at the site on radiological safety and emergency contingency procedures. In addition, nonadministrative permanent station employees receive training in first aid.

Plant employees receive additional formal training and retraining in procedures and techniques required by their position to include their individual responsibilities during an emergency as defined by the emergency procedures.

Personnel assigned to the emergency organization with specific Emergency Plan duties and responsibilities will receive specialized training for their respective assignments. Specialized training is conducted annually. The Plan summarizes the specific training to be provided to each member of the plan emergency organization, recovery organization, and offsite support agencies.

The Plan does not specify that emergency organization personnel will be required to annually demonstrate their ability to perform the emergency response duties that are not part of their normal duties.

Temporary maintenance and service personnel shall be trained only to the extent necessary to assure safe execution of their duties. This normally includes radiological safety and emergency contingency response.

The Senior Nuclear Training Specialist will maintain an individual training record for every person employed at the Station. The Plan does not describe how the training program is formalized to include provisions for lesson plans, or student performance objectives.

The Plan states that the Recovery Organization and Federal, State and local Support Services (Fire, Police, CD, medical) will receive general orientation on the Emergency Plan and procedures. The Plan summarizes the specific training to be received by these groups. These offsite groups will be either required (i.e., BECO employees) or invited at least every 12 months to participate in training. This requirement is exclusive of the drills and exercises.

The Public Information Department will conduct seminars to acquaint the news media with the Emergency Plan, radiation and points of contact.

The following items require resolution:

1. Provide for an annual demonstration, during practical drills, by each member of the licensee emergency organization of his/her ability to perform the emergency duties that are not part of their normal duties.

2. Describe the provisions for documenting the training program.

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

The BECO, Superintendent of Nuclear Operations has been assigned overall responsibility for emergency planning. To assist the Superintendent of Nuclear Operations in meeting his assigned responsibilities, the Staff Assistant to the Vice President Nuclear has been assigned as the Emergency Planning Coordinator. The Emergency Planning Coordinator is responsible to act as liaison with offsite agencies, updating and distribution of the Plan and procedures, coordination of exercises, and maintaining of proper inventory of emergency equipment and supplies. The Emergency Plan and procedures will be reviewed annually and updated as necessary. Audits of these plans will be performed by a committee consisting of a minimum of five members of both corporate and plant personnel established to provide independent audit and review of safety-related matters. All audit records and minutes are maintained indefinitely.

The Plan states that the audit will take into consideration various agreements and offsite plans; however, it does not clearly state that the agreements will be reviewed with offsite officials and updated annually.

The following items require resolution:

1. Provide for an annual review of agreements.

2. Provide for quarterly updates of phone numbers.