Enclosure 3 to SBK-L-17074

CHANGE INSTRUCTIONS
SEABROOK STATION RADIOLOGICAL EMERGENCY PLAN
(SSREP)

Remove	Insert	
Cover	Cover	Rev. 71
Table of Contents	Table of Contents	Rev. 71
List of Effective Pages	List of Effective Pages	Rev. 71
Section 6:	Section 6:	
1-6.1 thru 1-6.7	1-6.1 thru 1-6.7	Rev. 70
Section 8:	Section 8:	
1-8.1 thru 1-8.6	1-8.1 thru 1-8.6	Rev. 70
Figure 8.1	Figure 8.1	Rev. 70
Section 10:	Section 10:	
1-10.1 thru 1-10.12	1-10.1 thru 1-10.12	Rev. 70
Section 12:	Section 12:	
1-12.1 thru 1-12.8	1-12.1 thru 1-12.8	Rev. 70
Section 13:	Section 13:	
1-13.1 and 1-13.2	1-13.1 thru 1-13.3	Rev. 70
Appendix A:	Appendix A:	
Entire	Entire	Rev. 64
Appendix D:	Appendix D:	
Cover Page	Cover Page	Rev. 61
Table of Contents	Table of Contents	Rev. 61
D-2 thru D-2j	D-2 thru D-2l	Rev. 61
D-4	D-4	Rev. 61
D-6 thru D-6u	D-6	Rev. 61
D-10	D-10	Rev. 61
Appendix G:	Appendix G:	
Entire	Entire	Rev. 55

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SEABROOK STATION

PROGRAM MANUAL

Seabrook Station
Radiological Emergency Plan

SSREP
Rev. 71

Manual Owner:
D. Currier

SEABROOK STATION
RADIOLOGICAL EMERGENCY PLAN
(SSREP)

TABLE OF CONTENTS

LIST OF EFFECTIVE PAGES

PAGE	REV.
Cover	71
TOC 1 - 6	71
LOEP 1 - 2	71
1-1.1 and 1-1.2	56
1-2.1 thru 1-2.5	66
1-3.1 thru 1-3.4	66
Figure 3.1	64
Figure 3.2	55
1-4.1 thru 1-4.5	66
Figure 4.1	56
Figure 4.2	20
Figure 4.3	58
Figure 4.4	66
Figure 4.6	66
Figure 4.7	5
Figure 4.8	Undated
1-5.1 thru 1-5.11	64
Figure 5.6	56
Figure 5.7	56
Figure 5.8	56
1-6.1 thru 1-6.7	70
Figure 6.1	56
Figure 6.2	42
Figure 6.5	47
Figure 6.6	64
1-7.1 thru 1-7.4	64
Figure 7.1	64
Figure 7.2	64
Figure 7.3	64
Figure 7.4	64
Figure 7.5	64
1-8.1 thru 1-8.6	70
Figure 8.1	70
Figure 8.2	60
Figure 8.3	60
Figure 8.4	66
Figure 8.5	59
Figure 8.6	58
Figure 8.7	Canceled
Figure 8.9	64
Figure 8.12	50
Figure 8.13	13
Figure 8.14	52
Figure 8.15	
Sheet 1	55
Sheet 2	55
Sheet 3	55
Sheet 4	55
Sheet 5	55
Sheet 6	55
Figure 8.16	32
1-9.1 thru 1-9.7	66
Figure 9.1	66
1-10.1 thru 1-10.12	70
Figure 10.1	30
Figure 10.2	48
1-11.1 thru 1-11.3	64
1-12.1 thru 1-12.8	70
1-13.1 and 1-13.3	70
Appendix A	
Cover Page	64
Index	64
A-1 thru A-25	64
Appendix B cancellation sheet	42
Appendix C	
Cover Page	49
C-1 thru C-5	49
Appendix D	
Cover Page	61
Table of Contents	61
D-1	58
D-1a	58
D-1b	58
D-2 thru D-2I	61

LIST OF EFFECTIVE PAGES

PAGE	REV.	PAGE	REV.
D-3 thru D-3b	46		
D-4	61		
D-5 thru D-5c	56		
D-6	61		
D-7	59		
D-8 thru D-8e	59		
D-9 thru D-9b	60		
D-10	61		
Appendix E			
Cover Page	57		
E-1 thru E-5	57		
Appendix F	33		
Appendix G			
G-1 thru G-7	**55**		
Appendix H			
Cover Page	47		
H-1 thru H-7	47		

6.0 EMERGENCY FACILITIES AND EQUIPMENT

Following the declaration of an emergency, the activation of the Emergency Response Organization (ERO) will be accomplished within a number of dedicated emergency facilities. Figure 4.3 indicates the relative locations of Station facilities within the site. Figure 6.1 represents the locations of offsite support organization emergency operations centers relative to the Seabrook Station site. Descriptions of Seabrook Station facilities follow in Section 6.1. A description of emergency equipment and inventories is found in the Emergency Preparedness Department Facility Inventory Manual (EPFI).

6.1 Emergency Centers

6.1.1 Technical Support Center

A Technical Support Center (TSC) has been established in the Control Building to direct post-accident evaluation and assist in recovery actions. The TSC is habitable to the same degree as the Control Room for postulated accident conditions. The TSC has the capability to access and display Station parameters, including the Safety Parameter Display System (SPDS), independent from actions in the Control Room. The TSC is included in the Station emergency communications network. The TSC has access to the Seabrook Updated Final Safety Analysis Report (UFSAR), the Seabrook Station Radiological Emergency Plan (SSREP) and procedures, and a selected set of system prints, system flow diagrams, cable/wiring diagrams and equipment specifications. The TSC has the capability to assess radiological habitability conditions by monitoring for direct radiation and airborne particulates, and sampling for airborne radioiodines. Figure 8.6 defines the TSC organization. The TSC and TSC Document Control Center are depicted in Figure 6.2.

An alternative facility for TSC responders has been identified in the EOF for hostile action based events or other catastrophic events that prevent site access in accordance with 10 CFR 50 Appendix E, Section IV, E, 8, d. Procedures for TSC responders are located in the alternative facility.

6.1.2 Operational Support Center

The Operational Support Center (OSC), located on the first floor of the Administration and Service Building, provides a general assembly/dispatch area for assigned Station manpower needed to effect protective and corrective actions in support of the emergency situation. The OSC is included in the Station emergency communications network. Emergency equipment is provided at the Radiological Controlled Area (RCA) access point located within the OSC. Tools required by repair teams are provided at tool cribs maintained by the Maintenance Department in the RCA and other locations in the plant. Should conditions warrant evacuation of this center, the TSC will assume OSC functions; otherwise the OSC will remain active and staffed until terminated by the Site Emergency Director. Figure 8.5 defines the OSC organization. A layout of the OSC is provided in Figure 6.5.

An alternative facility for OSC responders has been identified in the EOF for hostile action based events or other catastrophic events that prevent site access in accordance with 10 CFR 50 Appendix E, Section IV, E, 8, d. Procedures for OSC responders are located in the alternative facility.

6.1.3 Emergency Operations Facility

An Emergency Operations Facility (EOF) is located at the Pease International Tradeport in Portsmouth, New Hampshire. The EOF shown in Figure 6.6 serves as a base of operations for radiological assessment, overall emergency response organization management and recovery activities. The State of New Hampshire Incident Field Office is physically co-located with the EOF. This arrangement ensures close coordination with State emergency response staff.

The EOF is included in the Station emergency communications network, as described in Section 7.0, which links all emergency response facilities, monitoring and assistance teams dispatched from the EOF, and offsite agencies. The EOF has the capability to access and display Station parameters, including the Safety Parameter Display System, independent of both the TSC and Control Room. Backup power to the EOF is available.

Radiological assessment, monitoring and evaluation, and protective action recommendation formulation are directed from the EOF. The EOF organization shown in Figure 8.4 is responsible for continuous evaluation and coordination of all Seabrook Station activities related to an emergency having, or potentially having, adverse radiological consequences. Copies of selected building prints and general building layouts are available via the LAN and on disk and can be printed out at the EOF. Emergency planning documents applicable to Seabrook Station, including area maps, emergency response procedures, State and local emergency plans are available in the EOF. The Seabrook Station updated UFSAR is available via the LAN. A backup disk version is maintained at the EOF.

The EOF has sufficient assembly space and is designed to accommodate responding representatives from government and industry. The EOF serves as the base of operations for Station material control, coordination of industry support, and establishment of a long-term organization to recover from the accident conditions and results. The EOF can serve as a centralized meeting location for key representatives from offsite authorities and Station management. The EOF can also act as a focal point for the coordination and acquisition of company resources and liaison with the Seabrook Station Joint Owners, American Nuclear Insurers and Institute of Nuclear Power Operations (INPO).

Emergency equipment maintained at the EOF includes gear necessary to assess radiological habitability. This consists of monitoring for direct radiation, and sampling for airborne radioparticulates and radioiodines. The EOF provides information needed by Federal, State and local authorities for implementation of offsite emergency plans.

6.1.4 Support for Radiological Analysis of Environmental Samples

The Environmental Analysts will be activated at an Alert, Site Area and General Emergency to provide radiological analysis of environmental samples in the EOF. The Environmental Analysts will respond to the EOF to utilize radio-analysis equipment maintained in the EOF to analyze silver zeolite cartridges and particulate filters used by field monitoring and environmental sampling teams to collect air samples in the field.

More definitive analysis of environmental samples will be available from GEL Laboratories. GEL is capable of providing on a continuous basis a full spectrum of radio-analysis of environmental samples which includes identification of principal accident radio-nuclides and their evaluation against EPA dose guidelines for relocation and FDA derived intervention levels associated with consumption of contaminated foods.

6.1.5 Joint Information Center

The Joint Information center (JIC) is co-located with the EOF in Portsmouth, New Hampshire. The center will be activated in order to provide a centralized location for holding joint utility, State, and Federal emergency news briefings. The Emergency News Manager will coordinate activities at this center. Emergency information will be obtained from the EOF and disseminated to the news media at the JIC.

This center will accommodate the media by providing

1. a media relations telephone service for news media to call for information;

2. a media briefing room with a public address system and graphics;

3. accommodations for video and audio equipment and media vans; and

4. station background information.

It is expected that State and Federal public information personnel will operate from the JIC. New Hampshire Homeland Security & Emergency Management (NHHSEM) and Massachusetts Emergency Management Agency (MEMA) operate a rumor control telephone service for their respective states. Rumor trends will be reported to the NHHSEM and MEMA representatives in the Joint Information Center where they can be addressed in joint news briefings.

6.1.6 Federal Radiological Monitoring and Assessment Center

The Federal Radiological Monitoring and Assessment Center (FRMAC) will be established by the US Department of Energy (DOE) at a suitable facility in proximity to the EOF in response to a request from either State or Federal authorities. The DOE and Environmental Protection Agency (EPA) are prepared to deploy specialized resources and establish a base of operations for offsite radiological monitoring and assessment activities. Environmental data obtained by an array of technical experts operating out of this center will be used by governmental officials in determining the hazard associated with the incident and the appropriate protective actions. DOE is responsible for the coordination of FRMAC emergency activities as described in the National Response Framework, Nuclear/Radiological Incident Annex.

6.2 Assessment Capability

The activation of this plan and the continual assessment of accident conditions require extensive monitoring and assessment capabilities. The essential monitoring systems needed to allow recognition of abnormal events by the Station operators was used in the accident classification methodology. This section briefly describes these monitoring systems as well as other assessment capabilities.

6.2.1 Process Monitors

Station process monitoring capability includes many process monitor indications provided from various sensors located throughout Station systems. Parameters monitored include pressure, temperature, flow, level and equipment operating status. These monitoring systems are described in the Seabrook Station UFSAR.

6.2.2 Radiation Data Management System

The Radiation Data Management System (RDMS) provides operators with the ability to assess Station radiological conditions during normal operations, as well as radiological emergency conditions. The RDMS is a microprocessor-based acquisition and display system. Field mounted detectors communicate individually to their own microprocessor which in turn communicates to two central processing units (CPU) on a redundant communication loop. The various parameters monitored include general area radiation, process radioactivity levels, airborne contamination levels, and effluent radioactivity levels. The quantity and diversity of the parameters monitored, along with the display capabilities of the RDMS, provide the operator with sufficient warning of accident conditions as well as continual accident assessments. However, the primary means of quantitatively evaluating system and plant radioactivity levels will be through a program of collecting physical samples and subjecting these physical samples to laboratory analysis to identify specific isotopes and their relation to the RDMS. A contingency capability has been established to measure accident dose rates in the reactor coolant system and to correlate the dose rates to reactor coolant activity. This capability provides the operators with fuel defect information that would be used to classify fuel damage events. This contingency capability includes the ability to collect an archive sample from either the reactor coolant system or the containment sump for laboratory analysis.

Each of the RDMS monitors alarms in the Control Room and Operational Support Center for a variety of alarm conditions (e.g., alert level, high level, power failure, etc.). This system is described in the Seabrook Station UFSAR.

6.2.3 Geophysical Phenomena Monitors

1. Meteorological

Seabrook Station maintains a 210-foot-high meteorological tower located near the south edge of Brown's River, as shown in Figure 4.3. The parameters monitored include wind speed and direction at 43 feet and 209 feet above ground level, and vertical temperature difference (delta-T) between 43 feet and 150 feet and between 43 feet and 209 feet. The meteorological data from the tower are scanned and recorded as 15-minute averages by the Main Plant Computer System (MPCS). These averages are available for on-demand display on MPCS terminals located in the Control Room, TSC, and EOF. A data logger located in the instrument building near the base of the tower serves as backup recording mechanism. (Protected: Ref. NRC IR 85-32(19))

A freestanding 53' backup meteorological tower is located adjacent to the settling basin outlet structure. The meteorological data from the backup tower are scanned and recorded as 15-minute averages by an independent computer system. These averages for wind speed, wind direction and calculated equivalent delta temperature are available for on-demand display on MPCS terminals located in the Control Room, TSC and EOF. (Protected: Ref. NRC IR 85-32(20))

Additional sources of meteorological information include various National Weather Service (NWS) Offices, and the PSNH Electrical System Control Center.

A dispersion model, Raddose-V, produces plume transport and diffusion estimates for the plume exposure pathway Emergency Planning Zone. The model produces plume dimensions, position, and relative concentrations at several downwind locations. Using effluent release information and a finite cloud external gamma dose model, estimates of near real-time dose rates will also be available. The model has the graphics capability of drawing plume position over a background map of the site. More information on these calculation techniques is given in Section 10.1.1 of this plan.

2. Seismic

Seabrook Station has installed seismic monitoring equipment with alarms indicated in the Control Room. The equipment consists of Triaxial Time History Accelerographs capable of measuring and permanently recording the absolute acceleration versus time for both horizontal and vertical motion.

The Control Room alarms will indicate the following:

a. Seismic event in progress;

b. Seismic monitor trouble; and/or

c. Seismic monitor OBE exceedance.

3. Hydrologic

Seismic Category I structures that house safety-related equipment have been designed to withstand a depth of still water on the Station grade (+20.6 ft. MSL) of 0.6 feet. Access openings in exterior walls that are below the design flood level consist of a railroad door in Unit 1 Fuel Storage Building and man doors in other structures. Flood protection has been provided by means of water-tight doors or curbs around the door openings. In the case of the Fuel Storage Building, curbs have been constructed around vulnerable equipment. All below-grade structures are waterproofed on the exterior face, and sumps have been installed in all buildings. Because of the general design, it was not necessary to install hydrologic monitors, nor will it be necessary to bring the reactor to a cold shutdown for the most severe flood anticipated for the Station.

6.2.4 Fire Detection Systems

Seabrook Station maintains an extensive fire detection network which utilizes a combination of smoke detectors, thermal detectors and rate-of-rise detectors as means of providing Station operators with complete fire status information.

The fire protection system is comprised of the following basic systems:

1. A pumped water system providing a complete underground looped station fire main with hydrants, hose houses and hose carrier for yard and building exterior protection, and internal sprinklers, hose stations and deluge systems for specific building applications.

2. Portable halon extinguishers in the Control Room complex, and all battery rooms.

3. Portable C02 fire extinguishers for use in relay room and switchgear areas.

4. Portable C02 and dry chemical fire extinguishers located throughout the Station for immediate use on small fires.

5. Fire pump house ventilation system.

6. Fire pump house and fire tank heating system.

7. Standpipes with hose stations in the containment, control building, primary auxiliary building, fuel storage building, waste processing building and equipment vaults.

6.2.5 Facilities and Equipment for Offsite Monitoring

In addition to offsite monitoring equipment and maps at the EOF as described in Section 6.1.3, Seabrook Station conducts an offsite radiological environmental surveillance program. This program has been established for the site and surrounding area to monitor the environment under normal and accident conditions. Details of the requirements of this program are contained in the Station Offsite Dose Calculation Manual (ODCM).

The EOF is equipped with a gamma spectroscopy system with High Purity Germanium detector and data processing computer and a high pressure ion chamber for direct gamma measurements. GEL Laboratories is available on a continuous 24 hour, seven days a week basis to provide a full spectrum of radio-analytical measurements on environmental sample media.

If mobilized, additional offsite monitoring and analysis capability will be provided by Federal agencies in accordance with the National Response Framework, Nuclear/Radiological Incident Annex, as discussed in Section 6.1.6. This additional capability would be integrated with the efforts underway in a coordinated manner.

8.0 ORGANIZATION

8.1 Introduction

An Emergency Response Organization (ERO) has been established to respond to radiological emergencies at Seabrook Station. This organization includes Seabrook Station personnel, local services support, and private organization support.

The structure of the emergency response organization will vary depending on the time of day, the severity of the incident, and the emergency classification. In the initial phases of an accident, an on-shift ERO (See Figure 8.1) consisting of personnel from the normal Station organization will be responsible for event classification and completion of emergency actions. In the following phases of emergency response, the Augmented ERO for either the Unusual Event (See Figure 8.2) or Alert, Site Area Emergency, and General Emergency (See Figure 8.3) will be activated with the capability of continuous, 24-hour-per-day operations for a protracted period. Figure 8.15 provides a comparison of the NUREG-0654 Table B-1 emergency response staffing requirements with the on-shift ERO.

8.2 Emergency Response Organization

The ERO structure which would be activated to respond to an incident at Seabrook Station is provided in Figures 8.1 through 8.6 and Figure 8.9. Appendix A describes the positions listed on these figures along with activation level, response location and responsibilities. Appendix A also correlates the normal Station title and/or types of background and responsibilities of assigned personnel to the emergency title for each position.

8.2.1 On-Shift Emergency Response Organization

The Shift Manager has the authority and responsibility to classify abnormal conditions in accordance with the emergency classification system. The classification and declaration of an emergency initiates the activation of the on-shift ERO (See Figure 8.1). Once an emergency is declared, the Shift Manager assumes the position of Short Term Emergency Director (STED). If available, the Unit Supervisor may assume the duties of the STED in the absence of the Shift Manager.

The Work Control Supervisor is a senior licensed individual assigned to each shift and is available to assist the STED with emergency plan implementation. Such assistance will be at the discretion of and as directed by the STED. All information provided to offsite authorities by the Work Control Supervisor will first receive review and approval by the STED.

Additional on-shift personnel assume emergency duties in the On-Shift Emergency Response Organization shown on Figure 8.1. Actions include assistance in initial emergency classification or reclassification, notification of State and NRC personnel, recommendation of offsite protective actions, and operational activities to achieve and maintain Station safety.

The Seabrook Station On-Shift Staffing Analysis Report, developed in accordance with 10 CFR 50 Appendix E, Section IV, A, 9, shows that the on-shift ERO is not assigned responsibilities that would prevent the timely performance of its assigned functions as specified in the emergency plan. SSREP Figure 8.1 depicts on-shift ERO staffing.

8.2.2 Augmented Emergency Response Organization

Following classification of an emergency, the On-Shift ERO will evolve to an Augmented ERO. The composition of the Augmented ERO depends upon the emergency classification level.

1. Unusual Event Augmented Emergency Response Organization

   During an Unusual Event, a limited number of ERO members, shown in Figure 8.2, are notified to assist the on-shift staff with the emergency response. These individuals are referred to as Primary Responders. The STED will transfer overall management responsibility to the arriving Site Emergency Director. As part of this transfer, the Site Emergency Director will be fully briefed by the STED on the status of the Station, accident mitigation and corrective actions taken, offsite notifications and the status of the ERO.

   Upon assuming command, the Site Emergency Director will notify appropriate ERO members of the transfer. Independent of the arrival of the Site Emergency Director, the Unusual Event Augmented ERO will carry out its responsibilities as outlined in the appropriate position descriptions of Appendix A. These actions are directed towards termination of emergency conditions, assessment of onsite radiological conditions, technical support, coordination of Station activities with offsite authorities (State and Federal), and provision of medical and other requested assistance.

   If the condition(s) that caused the Unusual Event completely clears prior to the Control Room notifying the Primary Responders, the STED may determine which, if any, of the Primary Responders need to report to the site. If not, these individuals will complete their assigned tasks on the following business day.

2. Alert, Site Area Emergency and General Emergency Augmented Emergency Response Organization

   Upon declaration of an Alert, Site Area Emergency, or General Emergency, there is a full augmentation of the On-Shift ERO. The fully augmented Alert, Site Area Emergency, General Emergency Augmented Emergency Response Organizations are shown on Figures 8.3 through 8.6 and Figure 8.9. The augmented emergency response organizations will carry out the responsibilities listed for the appropriate positions in Appendix A.

The Site Emergency Director will transfer command of the overall emergency response to the Response Manager. As part of this transfer, the Site Emergency Director will brief the Response Manager on Station status, accident mitigation, corrective actions taken, status of the ERO, and the protective action recommendations, if any, provided to offsite authorities. The Site Emergency Director will continue to direct all onsite response activities.

The Response Manager position will be assumed by a member of Seabrook Station senior management. This person has the authority, management ability and technical background to organize and manage response and recovery operations. The Response Manager is responsible for providing overall direction and guidance to the Site Emergency Director in the effort to return the Station to a safe condition.

For Alert, Site Area Emergency, and General Emergency declarations, the Response Manager will report to the EOF and this position will remain in effect until emergency conditions and subsequent recovery activities have been terminated.

The remaining Station ERO staff will report to locations identified in Appendix A and shown in Figures 8.3 through 8.6 and Figure 8.9. This may involve the relocation of some ERO staff from Unusual Event response locations to Alert, Site Area Emergency, and General Emergency response locations.

8.3 Emergency Public Information Organization

The Emergency Public Information Organization is responsible for providing factual and timely information to the public regarding emergency conditions at Seabrook Station. Technical advisors in the Joint Information Center will provide information to the Emergency News Manager. The Emergency News Manager directs the Joint Information Center organization shown in Figure 8.9, and is the primary spokesperson for the Seabrook Station ERO at the Joint Information Center. Figure 8.9 identifies a senior company official who may speak for the company in accordance with corporate communications policies.

8.4 Seabrook Station Corporate Support

Seabrook Station Corporate Support is integrated into specific ERO positions. These positions respond as part of an Augmented ERO. Position descriptions are contained in Appendix A.

Logistics support for emergency response personnel (e.g., transportation, communications, temporary quarters, food and water, sanitary facilities in the field, and special equipment and supplies procurement) will be arranged by the ERO staff at the Emergency Operations Facility.

8.5 Recovery Organization

The emergency measures presented in this plan are actions designed to mitigate the consequences of the accident in a manner that will afford maximum protection to the public. The emergency response organization described in various sections of this plan provides the foundation for the recovery organization. The recovery organization provides the necessary capabilities to restore normal Station activity.

The Response Manager will initiate planning for recovery at the EOF. Once the response phase of the emergency is terminated, a Recovery Manager will assume command of recovery efforts. Planning for the recovery mode of operations involves the development of general principles and goals, and an organizational capability that can be adapted to address the particular post-accident conditions. A recovery organization will be formed consisting of members of the normal station organization, the ERO and, if necessary, personnel from regional utilities, nuclear industry groups and consultants/vendors.

The Response Manager is directly supported by the staff at the EOF. Expertise in the disciplines of Engineering, Operations and Quality Assurance will be available during the recovery phase. Additionally, the Seabrook Station Training Center staff will be available to evaluate and test proposed operating sequences and recovery actions using the Training Center simulator and technical resources.

8.6 Extensions of Seabrook Station Emergency Response Organization

8.6.1 Local Services

Arrangements have been made for the extension of organizational capabilities for handling emergencies. These include the following:

1. Transportation of injured personnel using the Town of Seabrook Fire Department ambulance service;

2. Treatment of radioactively contaminated and injured personnel at Exeter Hospital and Wentworth-Douglass Hospital; and

3. Fire support services by the Town of Seabrook Fire Department and, if necessary, mutual aid.

Letters of agreement with participating local service organizations are maintained in Appendix D to this plan.

The Seabrook Station Physical Security Plan includes a description of external organizations (LLEA) that would support response to a hostile action based event. Agreements with appropriate LLEA for this purpose are maintained by the Seabrook Station Security Department. LLEA provisions in the Physical Security Plan and supporting agreements meet the requirements of 10 CFR 50 Appendix E, IV, A, 7.

8.6.2 Federal Government Support

Appropriate Federal agency resources would be made available in accordance with the National Response Framework, Nuclear/Radiological Incident Annex . This plan is activated through Station notification of the NRC. Available resources include offsite radiological assessment, under the leadership of the Department of Energy. This effort would involve manpower and equipment for extensive plume measurement, including aerial monitoring and tracking, and sampling and analysis of ingestion pathway media. The STED, Site Emergency Director and Response Manager have the authority to request Federal assistance.

8.6.3 Private Organization Support

Depending on the emergency conditions and the response needs, the Seabrook Station ERO can be augmented by personnel and equipment support arranged through the Institute of Nuclear Power Operations (INPO). The Response Manager and/or the Site Emergency Director will be responsible for the decision to request industry response through INPO. All industry organizations reporting to the Station will be required to report to Station emergency management who will specify the authorities, responsibilities and limits on the actions of these organizations. All response organizations will be required to adhere to all existing Station procedures while completing their activities.

8.7 Coordination with State Government Authorities

Because of the location of Seabrook Station, the planning for and implementation of State response actions involve two states, New Hampshire and Massachusetts. The Seabrook Station Radiological Emergency Plan has been developed to provide for a coordinated response with the plans of offsite governmental agencies.

Both New Hampshire and Massachusetts, as well as the localities within the plume EPZ, have prepared plans for a response to an emergency at Seabrook Station. In addition, the State of Maine, which lies within the ingestion EPZ, has the capability to carry out appropriate response actions. These plans describe their respective responsibilities, authorities, capabilities, and emergency functions.

Section 7.0 of this plan describes the communications network that has been developed between Seabrook Station and these states as a means of promptly notifying appropriate authorities of Station emergency conditions. The Short Term Emergency Director notifies New Hampshire State Police and Massachusetts Emergency Management Agency using the dedicated Nuclear Alert System (NAS). This notification keys mobilization of various levels of emergency response dependent on the emergency classification.

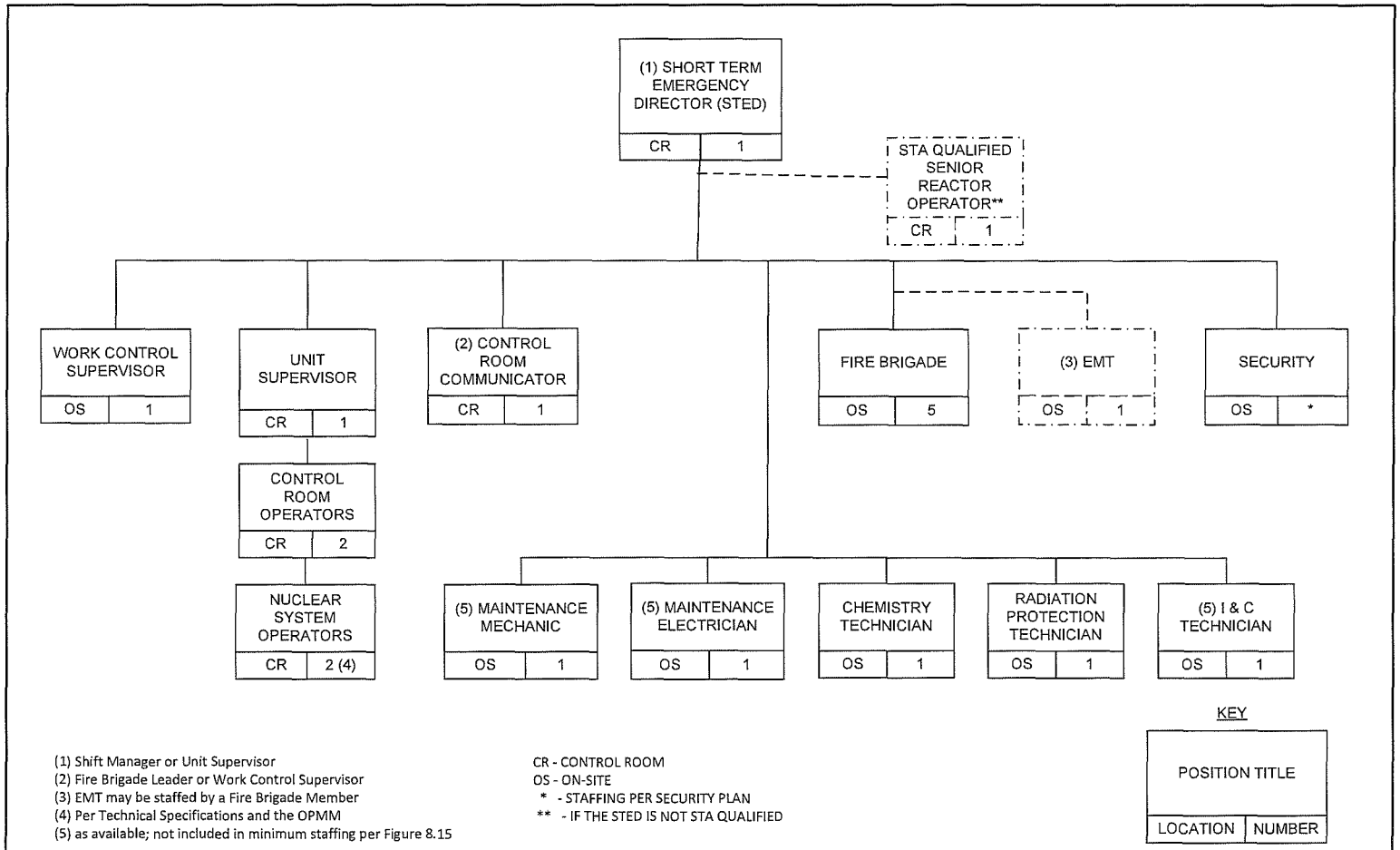
Dependent upon the emergency classification, both New Hampshire and Massachusetts would dispatch radiological health and emergency management representatives to the EOF for first-hand emergency information.

The EOF Coordinator coordinates radiological accident information and its meaning with both State and Federal emergency response organizations. Government requests for non-radiological information and specifically those regarding emergency management issues will be addressed by the Response Manager. Based on accident assessment, protective measures will be recommended by Seabrook Station and implemented by each state according to actions prescribed by each state's Radiological Emergency Response Plan.

The ERO Technical Liaison reviews plant technical information by telephone with offsite officials in the state emergency operations centers (EOCs). Seabrook Station technical representatives report to the New Hampshire and Massachusetts State EOCs to facilitate the review of plant information with state emergency response officials. The ERO Technical Liaison reviews plant information directly with New Hampshire and Massachusetts emergency response representatives at the Seabrook Station EOF.

Figures 8.13 and 8.14 provide a summary of the radiological emergency responsibilities and functions assigned to various Massachusetts and New Hampshire state authorities. The Station maintains an updated copy of each state's Emergency Plan and associated implementing procedures.

Information is coordinated with the Maine Emergency Management Agency by New Hampshire authorities for ingestion pathway considerations. Additional state support can be called upon from participating states in the New England Compact on Radiological Health Protection.



NOTE: On-shift staffing analysis shows that the on-shift ERO is not assigned responsibilities that would prevent the timely performance of its assigned functions as specified in the SSREP.

SEABROOK STATION RADIOLOGICAL EMERGENCY PLAN	ON-SHIFT EMERGENCY RESPONSE ORGANIZATION	
	SSREP Rev. 70	Figure 8.1

10.0 EMERGENCY MEASURES

10.1 Radiological Accident Assessment Systems and Techniques

The two monitored effluent pathways for accidental releases of radioactive material at Seabrook Station are the plant vent stack and the main steam lines (through the lifting of the safety relief valves or the throttling of the atmospheric steam dump valves). Each of these effluent pathways contains a monitor. The monitor responses can be correlated to the effluent radioactivity concentration. In addition to these monitored pathways, high-range containment area monitors are capable of measuring the exposure rate within the containment, which can be correlated to the radioactivity concentration within the structure. Each of the above systems may be considered as separate release pathways which can be assessed with its associated monitor. Containment leakage is also considered as a possible effluent pathway for dose assessment.

The containment monitoring system consists of redundant ionization chambers and instrumentation channels with a range of 10^0 to 10^8 R/hr (gamma). The system is Class 1E qualified. A time-dependent conversion factor has been calculated which will enable conversion of the monitor's response (R/hr) to the total noble gas concentration (μCi/cc) in the containment building at a given time after shutdown assuming that the concentration within the containment is uniform. This conversion factor is calculated based on the assumption that a core equilibrium mixture of fission products exists at t=0. It should be noted, however, that the intent of this system is not to correlate this monitor response to core conditions or damage but to estimate the concentration in the containment building. The only relationship that can be readily made from this monitor to core conditions is a minimum core damage level since the amount of diluted or undiluted primary coolant leakage into the containment building may be a major unknown variable. If available, the minimum core damage level indicated by this monitor will be used as an indication of the type of fission product mixture being released through the effluent pathways.

The Wide Range Gas Monitor (WRGM) is used to continuously monitor the gaseous activity released to the environment through the plant vent stack. Its monitoring range is large enough to encompass low level releases using a beta scintillation detector with a range of 4.0E-8 to 1.0E-1 μCi/cc and two mid to high range solid-state beta/gamma detectors of 7.0E-5 to 1.0E+3 μCi/cc and 2.0E-2 to 1.0E+5 μCi/cc, respectively. The WRGM was designed and installed to minimize personnel exposure while obtaining particulate and iodine grab samples. The WRGM also calculates a release activity in μCi/sec in the range of 1.0E+2 to 1.0E+14 μCi/sec.

A backup monitor is available in the event of a WRGM failure. This monitor consists of an ionization chamber type detector, viewing a prescribed geometrical container in which the stack exit gas flows. The detector and associated remote universal digital rate meter are capable of monitoring dose rates from 0.1 mR/hr to 10,000 R/hr.

The main steam line monitors consist of a G-M detector placed adjacent to each of the four (4) main steam lines (several inches) with remote readout modules. This monitor response (mR/hr) is used to estimate offsite doses.

10.1.1 Estimation of Offsite Dose Rates

Seabrook Station maintains a computerized dose projection system, utilized in the Control Room, TSC and EOF, which is capable of providing real time and forecast offsite dose estimates for actual meteorological and radiological accident conditions. The system is referred to as Raddose-V.

Raddose-V uses a variable trajectory, puff advection model of dispersion to predict the position of the radioactive plume. A ground level plume is modeled. The model uses a finite cloud technique to estimate external exposure received from the plume, while the standard concentration χ/Q methodology is used to estimate doses received from inhalation of radioisotopes and external exposure over a four day period from material deposited on the ground. In addition, the model incorporates routines for computing deposition, as well as the current dose rate from radioactive material deposited on the ground, out to 50 miles.

The Raddose-V calculation considers source term and plume decay, as well as the effects of wet and dry deposition of iodines and particulates. The model also includes predefined protective action recommendations to alert users of the program to any exceedances of the EPA-400 Protective Action Guides (PAGs). The EPA-400 PAGs used are 1 Rem TEDE and 5 Rem CDE-Thyroid.

The six main tasks of the Raddose-V program are:

1. Determine the source term (release rates) of airborne radioactive material, based on current, plant-specific accident data.

2. Model the atmospheric transport and diffusion of the released material, based current, local meteorological conditions.

3. To calculate TEDE, estimate the sum of exposure from the plume, inhalation of radioisotopes, and four day exposure from material deposited on the ground.

4. Calculate committed dose equivalent (CDE) to the thyroid.

5. Estimate integrated deposition of radioactive material and corresponding dose rates from deposited material.

6. Provide dose and deposition results for both real-time and forecast periods.

Raddose-V performs all calculations in discrete 15-minute "advection time steps'. The model allows up to 200 advection steps (50 hours) to be modeled. The model requires relevant meteorological and radiological information for each time step. The program data input screens allow for direct entry of Main Plant Computer System (MPCS) meteorological and radiological parameters, or the user can enter this data manually. Raddose-V then calculates plume position, and dose and deposition information, for each step, according to the meteorological and radiological data entered. New real-time calculations are conducted every 15 minutes, based on the new position of the plume at the end of the 15 minute advection step.

Once calculations are completed, users of the program are given the opportunity to print results following each 15 minute step.

For each time step, Raddose-V calculates dose rates and integrated doses at 80 radial-grid positions within the Plume Exposure Pathway Emergency Planning Zone (EPZ). Results are also provided at 77 predetermined receptor locations. Maximum dose rates by distance, based on plume position at the end of each advection time step, are calculated for each reporting location. The model also has the ability to calculate dose rates at any user-defined receptor location by entering the position's distance and bearing from the plant.

Further, the model calculates ground deposition at the 144 radial-grid receptors in the 50 mile Ingestion Pathway EPZ. These receptor locations include the same locations for which dose rates and doses are calculated in the Plume Exposure Pathway EPZ, plus receptors located at 20, 30, 40 and 50 miles at each of the sixteen (16) compass directions. TEDE and CDE-Thyroid doses are also given out to 50 miles.

Raddose-V also provides the ability to project doses (using a standard 4-hour default release duration) for the present incident without affecting the calculation results of real-time doses. Forecast results are based on "avoided" dose consistent with EPA-400 philosophy. Output reports available for real-time dose assessment are also available for the forecast calculations.

10.1.2 Evaluation of Field Environmental Samples

When Seabrook Station monitoring teams have determined the approximate plume centerline (i.e., maximum radiation level) in the field, they will take air samples at various intervals downwind from the station. These samples will be analyzed on a gross (beta, gamma) basis in the field and, if elevated levels are observed, returned to the EOF. At the EOF they will be referred to an appropriate laboratory facility to be analyzed to determine radionuclide concentrations.

Particular attention will be directed to observed iodine concentrations. The air samples will be analyzed in a two-step process. The first step involves a field analysis of the sample which measures the gross radioactivity collected on the silver zeolite cartridge and filter paper samples using a Pancake G-M detector. Field monitoring instrumentation can detect and measure radioidine concentration in the air as low as 10^{-7} Ci/cc. If the sample analysis shows a relatively high amount of radioactivity, a second analysis will be performed at an appropriate laboratory facility. The sample will be delivered to a laboratory facility for gamma spectroscopic analysis with greater sensitivity. Procedure ER 5.2, Site Perimeter and Offsite Monitoring and Environmental Sampling, also describes air sampling methods. Projected thyroid committed dose equivalent (CDE) will be determined from measured I-131 concentrations by multiplying by an estimate of the duration of the exposure and a dose conversion factor.

In addition to the measurement and evaluation of offsite direct dose rates and air samples for radioiodine, the offsite radiological impact assessment will include the identification of all principal radionuclides potentially released from the accident in all potentially significant exposure pathways. This will be accomplished through an offsite monitoring and sampling program in which environmental samples of media (water, air, soil, etc., as appropriate) will be collected and subjected to detailed radionuclide analysis. This analysis can be performed by the GEL Laboratories, Charleston, South Carolina. The radionuclide results of any such analysis would be interpreted in terms of radiation exposure to the public by the use of the comprehensive dose calculation programs available at the EOF. The results of environmental sample analyses will be evaluated in relation to US Environmental Protection Agency dose guidelines for relocation and to the US Food and Drug Administration (FDA) derived intervention levels for the radionuclides identified in FDA guidance for limiting consumption of radioactively contaminated foods.

10.1.3 Evaluation of Post Accident Samples

When an emergency condition results in core damage, an in-station (e.g., containment) source term that could be subsequently released, or a release, station emergency response personnel will obtain and analyze various post accident samples. Potential sampling points include containment atmosphere, gas spaces in other plant areas, and the plant vent stack. Per the Seabrook Station Post Accident Assessment Program, archive samples of the reactor coolant system and containment sump can also be obtained and analyzed. Source-term components, including radioiodine, would be quantified and evaluated in terms of actual or potential impact.

10.1.4 Severe Accident Management Guidance

Guidance for responding to severe accident conditions has been established and appropriate improvements have been implemented in accordance with Chapter 5 of NEI 91-04, Revision 1, Severe Accident Issue Closure Guidelines. Appropriate Severe Accident Management (SAM) references have been incorporated into applicable Seabrook Station emergency response (SSER) procedures. Severe accident management training requirements for TSC personnel are documented in the Emergency Preparedness Training Program Description. The Operations Training Department tracks SAM Implementor Training for Operations personnel.

10.2 Protective Action Recommendation Criteria

Seabrook Station will issue protective action recommendations (PARs) based on the emergency class and several factors which vary with each emergency class. No protective actions will be recommended at the Unusual Event or Alert emergency classes. At a Site Area Emergency, PARs for beach areas may be issued based on the time of year and selected plant status indicators. At a General Emergency, PARs will be issued based on selected plant status indicators, dose projections and field monitoring results.

Protective action recommendations have been developed using the guidance of NUREG-0654, Supplement 3, which provides an acceptable method to comply with 10CFR50, Appendix E, Section IV, paragraph 3 in the use of evacuation time estimates in the formulation of PARs for the plume exposure pathway emergency planning zone, and provides guidance for meeting planning standard 10CFR50.47(b)(10) in the development of a range of protective actions.

The protective action recommendations have been coordinated with responsible State of New Hampshire and Commonwealth of Massachusetts authorities.

For a General Emergency, other than a General Emergency based on a Hostile Action, Seabrook Station will at a minimum recommend (1) evacuation of towns within 2 miles of the Station, (2) evacuation of towns 5 miles downwind of the Station, (3) sheltering of the remaining towns within the EPZ, (4) evacuation of Hampton and Seabrook Beaches and (5) closure of Massachusetts beach areas. For a General Emergency based on a Hostile Action, the initial PAR will be to shelter for all EPZ towns. PARs may be expanded based on further assessments of plant and radiological conditions.

For accidents that result in airborne radioactivity releases, projected dose and dose rate estimates at the site boundary and distances out to 10 miles will be issued to those offsite authorities responsible for protective action decision making. Based on offsite field monitoring results and dose projections, Seabrook Station will recommend protective actions in accordance with the criteria set forth in the EPA Protective Action Guidelines, Table 10.1.

Seabrook Station will also perform ingestion pathway sampling and analysis, and assist offsite authorities in determining protective actions for the ingestion exposure pathway Emergency Planning Zone.

10.3 Radiological Exposure Control

During a Station emergency, abnormally high levels of radiation and/or radioactivity may be encountered. These levels may range from slightly above those experienced during normal station operation to life-endangering levels of several hundred rem in a short period of time. Under all situations, whether it is immediate action to regain control of the emergency or for life-saving purposes, measures will be taken to minimize personnel doses from external and/or internal sources of radiation.

Specific dose guidelines for entry or re-entry into areas in order to (1) remove injured persons, and (2) undertake corrective actions, are defined in Table 10.2 of the plan. The Site Emergency Director will authorize, with Health Physics Coordinator or Radiological Controls Coordinator concurrence, emergency dose guidelines consistent with these or more restrictive guidelines dependent upon emergency conditions. The Radiological Controls Coordinator will discuss the hazards involved in rescue procedures with the members of the response team prior to undertaking any health-threatening mission.

Considerations to be made prior to allowing personnel to accept risks associated with rescue operations are defined in Table 10.2, Emergency Dose Limits.

Dose to individuals providing other emergency functions will be consistent with the limits specified in Table 10.2 with every attempt being made to keep personnel dose as low as reasonably achievable (ALARA).

The Health Physics Coordinator, or a designated alternate, is responsible for maintaining the emergency radiological protection programs developed for station staff and support personnel. A supply of self-reading dosimeters will be stored at the Health Physics Control Point for distribution and assignment to the Technical Support Center. An emergency tote of self-reading dosimeters is stored at the EOF to ensure immediate deployment of offsite monitoring teams with dosimetry and to support entry of offsite personnel to the site. Self-reading dosimetry readers and program software have been added to the EOF inventory to ensure dosimetry activation.

Each emergency response organization member reporting to the site will be provided a Dosimeter of Legal Record (DLR) badge and a self-reading dosimeter. Dose records based upon the results of these dosimeters will be maintained at each center. This information will be cross-referenced with and replaced by DLR badge data when available. Should the station exhaust its supply of DLR badges, the station DLR vendor, Mirion Technologies (GDS) will supply DLR badges. Offsite authorities responding onsite will be provided dosimetry.

10.4 Protective Measures

10.4.1 Personnel Accountability

The determination of station personnel accountability is facilitated by the use of a computer-assisted accountability system. The goal of this system is to generate an initial list of missing individuals within 30 minutes of the declaration of an Alert or higher emergency classification level.

Upon declaration of an emergency and activation of station emergency alarms, station personnel assigned specific emergency responsibilities will proceed to their designated emergency center location. If an Alert or higher emergency classification level is declared, non-assigned personnel (e.g., station visitors, contractor and other station personnel) will return their dosimetry to the designated normal storage racks, if appropriate, and leave the protected area through the Guard Island. There, non-assigned personnel will receive instructions concerning station egress measures. Security will generate computer reports of personnel entering and evacuating through Guard Island. All emergency response personnel reporting to emergency centers will log in on card readers and accountability rosters associated with each center.

Station security personnel will be responsible for reviewing computer results and reporting these results to the Security Shift Supervisor who, in turn, will make the final determination of station personnel accountability and report the results to the STED or Site Emergency Director. Search and rescue procedures will be implemented if any persons have been identified as missing.

10.4.2 Station Access/Egress Control Methods

Under all Station emergency conditions, public address announcements, made by control room personnel, will provide emergency notification and instruction to those personnel within the Protected Area. Individuals in the balance of the owner-controlled area will be alerted by an onsite siren. Visitors or those in transit within the owner-controlled area will be advised by the most appropriate means. The complete warning and advisement process will be accomplished in a rapid manner to ensure personnel safety.

When an Alert, Site Area Emergency or a General Emergency has been declared, all non-assigned station personnel will be directed to proceed to either the remote monitoring area for monitoring and decontamination or directly home (except during outages when the station is in Mode 5 or 6 – see Chapter 3, section 3.2). Unless directed otherwise, non-assigned personnel will use their personal vehicles to leave the site.

In the event that station conditions may produce or have produced a release, traffic control measures will be established to direct unassigned personnel off site via the most appropriate exit (the North Access Road or the South Access Road). The Security Shift Supervisor will be informed by the Short Term Emergency Director or by the Site Emergency Director which access road to use for site evacuation traffic in order to minimize the potential for radiation exposure or contamination by radioactive material.

If a radioactive release has occurred which might result in the contamination of Station evacuees, personnel trained in contamination monitoring techniques will proceed to the remote monitoring area to perform contamination monitoring of evacuated vehicles and personnel. All evacuating personnel will be instructed to report to the remote monitoring area to be surveyed for contamination levels. If contamination is detected, actions will be implemented that appropriately correspond to the type and degree of contamination and that are consistent with the priorities of the emergency actions and conditions underway.

The radiological monitoring personnel will contact (via radio or telephone) the Radiological Assistant at the EOF and report contamination survey results. Appropriate personnel and vehicle decontamination techniques will be used as necessary.

Upon being released, station evacuees will be advised of area evacuation routes by security. Site evacuation routes are noted in Figure 10.2, Seabrook Station Evacuation Routes. Appendix C provides evacuation time estimates of the public within the plume exposure pathway EPZ and also summarizes the major evacuation routes which will be utilized if necessary.

The Security Coordinator will make arrangements for station badging necessary to support incoming emergency response personnel. All incoming responders will be directed to report to the EOF where they will be briefed and provided with the necessary equipment.

10.4.3 Protective Measures for Hostile Action Based Events

Operations Department Abnormal Operating Procedures (AOPs) contain specific instructions for onsite personnel within the Protected Area for hostile action based events. The AOPs are referenced in Appendix G, Section VII. The content of the instructions are specific to land based or airborne events. The protective measures prescribed by the AOPs conform to the requirements of 10 CFR 50 Appendix E, Section IV, 1.

10.4.4 Decontamination Capability

Station decontamination facilities are located in the Operational Support Center, specifically at the Radiologically Controlled Area HP Control Point. The RCA shower is available for personnel decontamination purposes. Soap, brushes, etc., are available to aid in decontamination efforts. Survey instrumentation for personnel monitoring is available here. If necessary, internal contamination can be assessed with the use of whole body count equipment (FASTSCAN) or its backup. All waste generated through the use of the decontamination facilities is collected and processed by the station liquid radwaste system.

Decontamination capability exists at the EOF including that required to support operations at the remote monitoring area. At the remote monitoring area, initial decontamination methods will involve the use mild soap and water in conjunction with a soft brush. All radwaste generated as a result of this procedure will be disposed of by normal radwaste procedures. All personnel with detectable skin contamination will be detained for decontamination purposes; otherwise, they will be released. Radiation Protection Department procedures for personnel surveys and decontamination techniques prescribe progressive techniques for skin decontamination, including techniques applicable to removal of radioiodine contamination. The procedures and supplies for implementing them are maintained at the EOF. At the EOF, personnel decontamination can be accomplished with the use of a shower station, with wash water collected into a tank and pumped to 55-gallon drums that shall be transferred to the site for processing. If required, vehicle decontamination will be accomplished via dry decontamination methods.

10.4.5 Use of Onsite Protective Equipment and Supplies

The station supplies of personnel radiation protection equipment will be used as necessary to support the emergency response effort. Respiratory protection equipment, protective clothing, and potassium iodide will be assigned to the onsite emergency response organization members in accordance with Procedure ER 4.3, Radiation Protection During Emergency Conditions. Respiratory protection qualifications for personnel assigned to OSC positions, Offsite Monitoring Team positions, On-shift Electricians, On-shift Mechanics, and On-shift I&C Technicians will be tracked by Emergency Preparedness. Respiratory protection qualifications for Plant Engineering engineers who could be assigned to corrective action teams will be tracked by Plant Engineering. Radiological monitoring equipment will be stocked and available for use at established emergency centers. Seabrook Station documents containing detailed lists of dedicated equipment available to support radiological emergency response efforts are referenced in Appendix F.

10.4.6 Radiation Guideline Action Levels

Radiation guideline action levels for emergency center habitability are shown on Tables 10.1 and 10.3. These tables describe the actions of station staff in response to a range of station radiological conditions.

10.5 Aid to Affected Personnel

10.5.1 Medical Treatment

Station medical facilities are provided in the first aid station located in proximity to the Radiologically Controlled Area HP Control Point. Seabrook Station also maintains a site medical office located in the Operations Support Building. The first aid station and medical office are equipped and supplied to implement the requirements of the Medical Program. (Protected: Ref. NRC IR 85-32[10])

Specific station personnel have been trained as Emergency Medical Technicians (EMTs). One Emergency Medical Technician, supplemented by at least one additional individual trained in first aid and cardio-pulmonary resuscitation, will be on site at any one time to provide 24-hour emergency response coverage.

10.5.2 Medical Transportation

Arrangements have been made with Exeter Hospital to provide care for contaminated injured patients. In addition, Wentworth-Douglass Hospital located in Dover, NH, will provide care for these individuals on a backup basis. Both hospitals participate in medical emergency drills as a portion of emergency plan training.

The Seabrook Fire Department ambulance will be used for medical transportation of injured and contaminated personnel. The ambulance is capable of radio communications with the hospital while en route with a patient. (Protected: Ref. NRC IR 85-32[12])

Ambulance personnel are provided with specific training by Seabrook Station staff on the radiation protection considerations associated with radiologically contaminated personnel.

Table 10.1
EPA Protective Action Guidelines

Applicable to Seabrook Station Protective Action Recommendation Procedures

PAG	PROTECTIVE ACTION	COMMENTS
1 rem TEDE[a]	Evacuation	Evacuation of the general public should be initiated at 1 rem.
5 rem CDE[b] - thyroid	Evacuation	Evacuation of the general public should be initiated at 5 rem.

Potential State Considerations

PAG	PROTECTIVE ACTION	COMMENTS
5 rem TEDE	Evacuation	Special situations include severe weather, competing disasters, evacuation impediments or institutionalized persons not readily mobile.
25 rem CDE - thyroid	Evacuation	Special situations include severe weather, competing disasters, evacuation impediments or institutionalized persons not readily mobile.
>25 rem CDE - thyroid	Administer KI	Offsite Emergency workers and institutionalized persons.

[a] Total Effective Dose Equivalent - see Definitions

[b] Committed Dose Equivalent - see Definitions

Table 10.2
Emergency Dose Limits

Dose Limit[a] [b] (rem)	Activity	Condition
5	All activities	
10	Protecting valuable property	Lower dose not practicable
25	Lifesaving or protection of large populations	Lower dose not practicable
>25	Lifesaving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved.

[a] TEDE to non-pregnant emergency workers.

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

Table 10.3
Emergency Center Protection

1. Center habitability actions shall be as indicated on Figure 10.1.

2. The need to dispense potassium iodide (KI) tablets to emergency response personnel is based upon a projected or actual thyroid committed dose equivalent (CDE) $\geq$ 5 rem*. Administering KI after an uptake may limit thyroid CDE depending on time after exposure.

3. Protective clothing (lab coats, shoe covers, cotton gloves) will be required when indicated by RP survey results.

* Based on most limiting FDA recommended threshold for pregnant and lactating women per "Guidance, Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies," U.S. Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research (CDER), November 2001.

12.0 MAINTAINING EMERGENCY PREPAREDNESS

12.1 Drills and Exercises

Emergency exercises and drills shall be conducted to test and evaluate the adequacy of emergency facilities, equipment, procedures, communication channels, actions of emergency response personnel, and coordination between Seabrook Station and offsite agencies. A summary of exercises and drills, and associated elements are presented below.

As used for emergency preparedness drills and exercises, "annual" means that the event shall be conducted once within a calendar year. For "semi-annual," the event shall be conducted once within the first 6 calendar months of a year and once again within the second 6 calendar months. "Biennial" means the event will be conducted within a two-year period.

12.1.1 Radiological Emergency Plan Exercises

An exercise tests the execution of the overall Station emergency response and its integration with responding offsite organizations. In order to test and evaluate the Station emergency response, an exercise shall be conducted every two years. Consistent with the regulatory requirements for offsite exercise participation, Federal, State and local agencies shall be notified of intended exercises and their conduct shall be coordinated with offsite authorities as appropriate.

12.1.2 Emergency Plan Drills

A drill is a supervised instruction period aimed at testing, developing and maintaining skills in a particular emergency response function. The frequency of drills is dependent upon the function to be tested.

1. Combined Functional Drills

To ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises, at least one annual drill will be conducted involving a combination of some of the principal functional areas of the onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, protective action decision making, and plant system repair and corrective actions. Activation of all of the emergency response facilities will not be necessary during these drills. State and local governments within the plume exposure pathway EPZ may participate in these drills at their request.

2. Communication Drills

To ensure that emergency communications equipment is operable, communication drills shall be conducted as outlined below. Included in the scope of these drills is the aspect of understanding message content. Paragraphs c, d, and g below may be performed as part of annual combined functional drills and the required biennial exercise.

a. Communication channels with State governments within the plume exposure pathway shall be tested monthly;

b. The pager system for the notification of the Primary Responders of the Emergency Response Organization (ERO) shall be tested weekly;

c. Data transmission capability between Station emergency centers shall be tested annually;

d. EOF communications to State Emergency Operation Centers and to Station field assessment teams shall be conducted annually;

e. Communications between the Control Room and the NRC Headquarters Operations Center shall be tested weekly or as otherwise directed by the NRC;

f. Communications between the EOF, TSC and the NRC Headquarters Operations Center shall be tested monthly or as otherwise directed by the NRC; and

g. Notification of the Secondary Responders of the ERO via the RapidNotify emergency notification service shall be tested at least annually.

3. Fire Drills

To evaluate the response and training of the Station fire brigade and coordination of same with offsite fire support, a number of fire drills are conducted annually with at least one drill being conducted with offsite fire support. The drills shall be conducted in accordance with the Seabrook Station Fire Protection Manual (SSFP).

4. Medical Drills

To evaluate the response and training of the Station medical response and offsite hospital personnel, a medical drill shall be conducted annually involving a simulated contaminated individual. Although the Station medical response may be tested more frequently, the offsite response portion of medical drills may be performed as part of the biennial exercise.

5. Radiological Monitoring Drills

Plant environs and radiological monitoring drills (onsite and offsite) shall be conducted annually. These drills shall include collection and analysis of airborne sample media, communications, recordkeeping and, if feasible, interface with other offsite monitoring efforts. In addition, a drill will be conducted on the collection of other sample media (e.g., soil, water and vegetation). Radiological monitoring drills may be performed as part of a training activity, another drill or the biennial exercise.

6. 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. These drills may be performed as part of a training activity, another drill or the biennial exercise. Additionally, Chemistry personnel shall be drilled annually on obtaining and analyzing post-accident samples.

12.1.3 Drill and Exercise Scenarios

The Emergency Preparedness Manager is responsible for coordinating preparation for and implementation of drills and exercises with the exception of fire and medical emergency drills. Operations Support staff are responsible for coordinating preparation for and implementation of fire and medical emergency drills. For exercises that include offsite participation, the scenario shall be submitted to FEMA for agency review in accordance with regulatory guidance. All exercise scenarios shall be submitted to the NRC prior to implementation.

Within an eight-year period (beginning 1/1/2014), drill and exercise scenario content shall be varied to test all the major elements of the emergency preparedness program. These major elements correspond to the objectives presented in applicable fleet and site procedures. Within an eight-year period, one scenario shall include the states' response within the ingestion pathway EPZ. In general, the scenario shall simulate a sequence of emergency conditions that would call for the mobilization of the offsite authorities, require recommendations of offsite protective measures, and allow for evaluation of offsite plans and their integration with the Station response. The scenario shall include, as a minimum, the following:

1. Date, time period, locations and participating organizations;

2. Basic objectives and specific elements that are to be tested;

3. Guidelines and extent of play;

4. Controller instructions, and a list of controllers and evaluators;

5. A narrative summary of the exercise scenario and expected responses; and

6. Time schedule of real and simulated events.

Seabrook Station cannot commit other organizations to conduct an exercise during off-hour times. Outside organizations shall be encouraged to participate in exercises, but starting times and pre-notification for exercises have to be agreed upon by participating offsite organizations. Exercises will be conducted in different seasons of the year, to the extent practicable, depending on circumstances such as scheduled refueling outages and exercise schedules for other sites affecting the availability of NRC and FEMA evaluators.

The exercise shall be structured with sufficient flexibility to allow free play for decision-making processes. The exercise scenario package shall describe a specific accident sequence, contain a set of input messages, and list anticipated response actions which parallel the accident sequence. The exercise controller organization shall receive instructions to recognize areas where ERO responses may deviate from anticipated responses. The exercise controller organization may (1) restrict player action if the response threatens the approved time sequence; (2) restrict player action if the response circumvents a required exercise objective; and (3) introduce "free play" items to the scenario sequence if player actions become stagnant.

Exercise elements which may allow free play in the decision-making process include the following:

1. Exposure control actions;

2. Manpower augmentation actions;

3. Emergency classification actions, particularly the de-escalation process;

4. Recommendation of protective actions; and

5. Coordination and communication with offsite authorities.

12.1.4 Evaluation of Exercises

To evaluate the performance of participating facility personnel and the adequacy of emergency facilities, equipment and procedures used during an exercise, the Exercise Manager shall arrange for qualified controllers and evaluators to evaluate and critique the exercise.

A critique shall be conducted as soon as feasible following the conclusion of the exercise with player personnel as designated by the Exercise Manager. After the critique, the controllers and evaluators shall provide drill/exercise-related documentation and performance reports to the Drill/Exercise Manager. The Drill/Exercise Manager shall use this information to determine whether, and to what extent, drill/exercise objectives were demonstrated.

The exercise documentation shall be submitted to the Emergency Preparedness Manager who shall assign responsibility and deadlines for corrective actions. Individuals assigned this responsibility shall be required to document actions taken to improve the Station's emergency preparedness.

12.1.5 Credit for Response to an Actual Emergency

Demonstration of exercise or drill objectives scheduled for evaluation in accordance with Fleet EP Drill and Exercise procedures may be satisfied by the effective response and documentation of designated key ERO staff to an actual emergency. Credit will be given for this objective when the following provisions are met in response to an actual emergency.

1. The emergency required a prompt and timely response and mobilization of key ERO staff responsible for the implementation of RERP emergency functions;

2. The emergency resulted in the establishment of communications links among responding organizations;

3. The following documentation, describing the level of response and involvement of key ERO staff to the emergency, is available:

   Type of emergency;
   Period of response;
   Arrival times of responders;
   Communications logs;
   Emergency decisions made and implemented;
   Emergency plan resources used; and
   List of staff involved.

4. The event is evaluated in accordance with Emergency Preparedness Department procedures for Post Event Reviews and Evaluations to determine if the actions taken were appropriate or the response warrants implementation of future corrective measures.

12.2 Emergency Plan Training

The following sections describe the various types of Emergency Plan Training.

12.2.1 Emergency Response Organization (ERO)

Training for ERO personnel is conducted in accordance with the ERO Training Program Description. Changes to this document shall be reviewed to ensure that (1) they do not decrease the effectiveness of the SSREP, the SSER or Seabrook Station emergency response capabilities, and (2) when implemented, the emergency preparedness program will continue to meet the applicable standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. (Protected: Ref. NRC Inspection Report 50-443/93-03)

Major elements of the program are discussed below.

Seabrook Station personnel with specific positions in the ERO shall receive training to initially qualify them for a response position. ERO assignments shall, as much as possible, parallel normal job knowledge, skills and abilities.

Initial training shall consist of an overview course and other courses that are appropriate to the individual's response position. The required initial courses are specified in the ERO Training Program Description.

Selected ERO members shall receive annual re-qualification training to maintain their level of emergency response knowledge. The required re-qualification training courses are also specified in the ERO Training Program Description. Re-qualification training courses are conducted throughout the year. The ERO Training Program Description contains a generic annual schedule which is used to ensure that re-qualification training occurs at about the same time period each year. Re-qualification courses may be scheduled up to three months away from the generic schedule to accommodate plant events such as outages.

Annual re-qualification training courses shall be completed within 15 months. Validation, exemption and deferral from this annual training requirement are discussed in the ERO Training Program Description.

Training other than that shown in the ERO Emergency Preparedness Training Program Description may be given to address specific needs.

12.2.2 Support Groups

Personnel from support groups who report to Seabrook Station shall be offered training designed to aid them in performing their emergency response function, including the Town of Seabrook Fire Department. This training shall be offered annually.

Support groups that do not report to Seabrook Station shall also be offered training designed to aid them in performing their emergency response function. These personnel include NH Homeland Security & Emergency Management, NH Department of Health and Human Services, Massachusetts Emergency Management Agency, Massachusetts Department of Public Health, Maine Emergency Management Agency, Wentworth-Douglass Hospital and Exeter Hospital. (Protected: Ref. NRC IR 86-18[03]) This training shall be offered annually.

12.2.3 Station Personnel with No ERO Assignment

Station personnel with no ERO assignment shall be trained in their proper response to an emergency during Plant Access Training. This training shall be given on an annual basis.

12.2.4 Emergency Preparedness Department Personnel

Emergency Preparedness Department personnel receive plant access training and training specific to their individual ERO assignments. In addition, the Emergency Preparedness Manager schedules personnel participation in specialized emergency planning training, participation in EP related conferences, and as technical specialists for EP audits at other sites.

12.2.5 Records

Documentation of training conducted in support of emergency planning is maintained in accordance with appropriate nuclear training procedures.

12.3 Review and Updating of Plan and Procedures

Independent reviews of the Seabrook Station emergency preparedness program shall be conducted every 12 months. The reviews shall include the emergency plan, its implementing procedures, training, equipment, readiness testing and State and local government planning interfaces. Management controls shall be implemented for evaluation and correction of review findings. The result of the review, along with recommendations for improvements, shall be documented and retained for a period of five years.

Intent revisions to the SSREP and to SSER emergency plan implementing procedures ER 1.1, Classification of Emergencies; ER 1.2, Emergency Plan Activation; and ER 5.4, Protective Action Recommendations, shall be submitted to the Station Operation Review Committee (SORC) for review and approval before implementation. Intent revisions of other emergency plan implementing procedures contained in the SSER shall be reviewed by a station qualified reviewer per the Station Qualified Reviewer program and approved by the Emergency Preparedness Manager prior to implementation. On an annual basis, written agreements with outside support organizations and government agencies shall be evaluated to determine if such agreements are still valid. (Protected: Ref. FPL Common Letter L-2005-214)

If not, then these agreements shall be renewed and updated; otherwise, the agreements shall be considered current. Telephone number listings associated with the Station emergency response facilities shall be reviewed quarterly and updated if necessary. Revisions shall be made in accordance with current regulations and guidelines on a continuing basis, as applicable. Revisions and changes to the plan and procedures shall be forwarded to all document control list recipients. (Protected: Ref. NRC IR 86-18[31])

12.4 Maintenance and Inventory of Emergency Equipment and Supplies

Emergency equipment and supplies are maintained as indicated in the Emergency Preparedness Facility Inventory Manual. Emergency portable survey instruments and dosimetry will be calibrated in accordance with applicable health physics programs and procedures. Along with requirements for calibration, the instruments shall be source-checked before each use. There are sufficient reserve instruments and equipment to replace those that are removed from emergency kits for calibration purposes. An inventory of the emergency storage locations shall be made, and discrepancies shall be noted and corrected.

12.5 Emergency Preparedness Manager

The Emergency Preparedness Manager is the emergency planning coordinator with overall authority for radiological emergency response planning for Seabrook Station. The Emergency Preparedness Manager has the following responsibilities:

1. Maintain the Seabrook Station Radiological Emergency Plan (SSREP).

2. Maintain the Emergency Response Manual (SSER).

3. Ensure the conduct of drills and exercises.

4. Track identified drill and exercise deficiencies, and associated corrective action.

5. Maintain Emergency Response Organization staffing.

6. Maintain Emergency Response Organization pager assignments and publish schedules.

7. Maintain the Emergency Response Organization notification system data base.

8. Maintain the emergency response facilities as described in the Seabrook Station Radiological Emergency Plan and Emergency Response Manual.

9. Obtain and track the availability of facilities and equipment required to maintain the Seabrook Station emergency response in a continuous state of readiness.

10. Ensure implementation of the communications and equipment test program.

12.6 Technical Training Supervisor

Ensures the conduct and documentation of emergency preparedness training.

12.7 Operations Support Manager

1. Maintains Operations Department fire response and medical emergency response procedures.

2. Ensures the conduct of fire and medical emergency response drills.

13.0 SUMMARY OF CHANGES

Rev. 70 (AR 02131023 December 2016):

Section 6 – Updated description of new seismic monitor alarms (EC 282184).

Section 8.3 – Removed reference to cancelled STMM and replaced with corporate communications policies.

Figure 8.1 – Reformatted Figure. Added EMT position to more clearly indicate that an EMT is required on shift. Revised note to state that the qualified EMT may be staffed by a member of the Fire Brigade.

Section 10.1.2 – Improved description of field monitoring instrumentation sensitivity. Changed terms for TLD to Dosimeter of Legal Record (DLR) and electronic dosimetry to self-reading dosimetry to support NEI Efficiency Bulletin 16-26c (AR 02168330).

Sections 12.1 – Replaced reference to the site EP Drill and Exercise Manual with applicable fleet and site procedures.

Section 12.1.2.2 – Corrected referenced step number.

Appendix A, Rev. 64 – Returned the Security Personnel position to Table 1. This position was inadvertently deleted due to an editing error during a previous revision (AR 2092861).

Appendix D, Rev. 61 – Replaced outdated INPO Letter of Agreement with current letter from INPO Website. Updated Remote Monitoring Area LOA with new lease information. Updated Seabrook Fire Department Letter of Agreement.

Rev. 69:

Added description of Code Red, the backup Alert and Notification System to Appendix E. (AR 02016739)

Rev. 68:

Revised §10.2, Protective Action Recommendation Criteria, to recognize NUREG-0654/FEMA-REP-1, Rev.1, Guidance for Protective Action Strategies, and to identify shelter for all EPZ towns for a General Emergency based on a Hostile Action. (AR 01901615)

Rev. 67:

Replaced description of backup meteorological recorders from strip chart recorders to data logger to support meteorological tower equipment replacement performed by EC 280653 (AR 01983988).

Rev. 66:

§2.0, Definitions, removed reference to "blue team"

§2.0, 3.2, 9.2.2, & 12.1.2.2 – Removed reference to Radiation Safety & Control Services (RSCS) (AR 01956417)

§12.3 – Editorial change to correct referenced procedure number ER1.1.

Table 4.1 – Updated population with most current (2010) census data.

Figures 4.4 & Figure 4.6, updated with current Evacuation Time Estimate values.

§6.1.4 & Figure 8.4 – Replaced reference to Radiation Safety & Control Services (RSCS) with Environmental Analysts (AR 01956417).

Figure 9.1, Removed reference to blue team.

Rev. 65:

In §9.2.2, Alert Response, added a description of expected ERO response to activate emergency facilities. (AR#1890396)

Rev. 64: (AR#1721945)

In §2.0, Definitions added Alternative TSC and OSC, changed Media Center to Joint Information Center, changed location of EOF from Newington to Portsmouth, revised definitions for Primary Responders, Subject-to-Call Responders and Secondary Responders to clarify notification by both pager and by automated emergency telephone notification system.

In §3.2, Station Emergency Response, added references to the Alternative TSC and OSC, changed Media Center to Joint Information Center, identified that the Alternative TSC and OSC are located within the EOF, and indicated that TSC and OSC personnel report there for hostile action based events or other catastrophic events that prevent site access.

In §3.4, Federal Government Response, changed location of EOF from Newington to Portsmouth.

In §5.5 changed FSAR reference to UFSAR

In §6.1.1 and 6.1.2, added or other catastrophic events that prevent site access after hostile action based events to describe when personnel would respond to the alternative TSC/OSC facilities.

In §6.1.3 updated location of EOF to Pease International Tradeport in Portsmouth.

In §6.1.5 Media Center, changed Media Center to Joint Information Center.

In §6.2.5 Facilities and Equipment for Offsite Monitoring, changed GeLi to High Purity Germanium and Seabrook Technical Specifications to Offsite Dose Calculation Manual

Figure 6.6 updated with new EOF layout

In § 7.1 Changed commercially supplied digital radio service to radio system.

Figure 7.1, Emergency Notification and Figure 7.2, Coordination Channels with States, referred to the backup as a 800mHz radio

Figure 7.3 changed location of EOF from Newington to Portsmouth.

Figure 7.4 updated with new communications.

In §8.3 Emergency Public Information Organization, changed Media Center to Joint Information Center

Figure 8.4 Emergency Operations Facility, changed Media Center to Joint Information Center.

Figure 8.9 Media Center Organization Definitions, changed Media Center to Joint Information Center.

In §9.2.2 Alert Response, added Alternative TSC and OSC, changed Media Center to Joint Information Center, added or other catastrophic events that prevent site access after hostile action based events.

In §10.1.1 Estimation of Offsite Dose rates, changed number of tasks performed by Raddose-V from 5 tasks to 6.

In §10.4.4, Decontamination Capability, described new EOF capability.

§11.3 Public Information, changed Media Center to Joint Information Center.

APPENDIX A

EMERGENCY RESPONSE ORGANIZATION POSITION DEFINITIONS

(Protected: Ref. NRC IR 85-32[15b])

APPENDIX A

INDEX

NOTE

The prerequisites and backgrounds prescribed for ERO positions in Table 1 will apply to position holders assigned to the ERO. Under extraordinary conditions, the Emergency Preparedness Manager may make exceptions to Table 1 requirements to ensure that an emergency response organization is maintained. Exceptions to training requirements shall be processed in accordance with the requirements of the Training and Qualification Manual (NAQM).

TABLE 1 ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])		
POSITION TITLE	**PREREQUISITES**	**POTENTIAL CANDIDATES BACKGROUND**
Administrative Services Coordinator	No specific position prerequisites.	Appropriate management or supervisory experience as determined by EP management.
Assembly Area Coordinator	No specific position prerequisites.	No specific background requirement.
BOP Support Engineer	Engineering background or degree. Applicable Radiation Worker qualification.	Routinely engaged in engineering-related activities.
Chemistry Coordinator	Applicable Radiation Worker qualification, Respiratory Protection qualification.	Chemistry Department personnel (except bargaining unit).
Chemistry Technician	Completed appropriate department qualification program. Applicable Radiation Worker qualification GT1070I/GT5004C (Protected: Ref. SEP911077), Respiratory Protection qualification, GT1074J.	Chemistry Technician.
Control Room Communicator	Applicable Radiation Worker qualification.	Fire Brigade Leader.
Control Room Operators	Licensed Reactor Operator. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Individuals assigned by Operations.
Document Control Center Coordinator	Working knowledge of Records Management Department (RMD) manuals & procedures.	RMD personnel.
Dose Assessment Personnel	No specific position prerequisites.	No specific background requirement.

PREREQUISITE COURSE NUMBERS

GT1074J	= FIREHAWK SCBA Use	TS8072I-TS8081I	= Plant Operations Course	HP 1044Z	= HP Fundamentals
HP6002I	= VSDS Workshop	HP1066Z	= HP Fundamentals for Junior HP Technicians	GT1070I	= Supplemental Radiation Worker
HP1067Z	= OSC Junior HP Technician	GT5004C	= WBT Supplemental Radiation Worker Requalification	HP1075I	= Response to Contaminated Injured Person
RW1032Z	= HP Fundamentals for Radwaste	TS1003C	= Mitigation of Core Damage		

TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Dose Assessment Specialist	Assigned from the Health Physics Department or working knowledge of Station HP programs (e.g., dosimetry, access controls) and of radiological consequence assessment (e.g., core damage, effluent pathways, release components). (Protected: Ref. NRC IR 98-03 and CR 98-1743).	Personnel with appropriate technical skills and experience as determined by HP management.
Dosimetry Records Personnel	Knowledge of or training in the station dosimetry records program.	Personnel with appropriate knowledge of the station dosimetry program as determined by Radiation Protection Department management.
Electrical Maintenance Personnel	Completed appropriate department qualification program. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Electrical Maintenance Department personnel (except bargaining unit), or Training Department personnel for this discipline.
Electrical Support Engineer	Engineering background or degree. Applicable Radiation Worker qualification.	Routinely engaged in engineering related activities.
Electricians	Applicable Radiation Worker qualification, Respiratory Protection qualification.	Station Electricians.
Emergency News Manager	Personnel assignments must receive concurrence from the Seabrook Station Communications Department.	Personnel with appropriate knowledge of communications activities as determined by the Communications Dept. management.

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TABLE 1 ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])		
POSITION TITLE	**PREREQUISITES**	**POTENTIAL CANDIDATES BACKGROUND**
Emergency Operations Manager	Currently licensed SRO, supervisor or higher (Protected: Ref. NRC IR 98-03 and CR 98-1743). Applicable Radiation Worker qualification TS1003C – Mitigation of Core Damage (Protected: Ref. NRC IR 86-18 (4) and ISEG # R8905-003).	Shift Managers or Assistant Operations Managers jointly assigned by Operations and Emergency Preparedness.
Engineering Coordinator	Engineering background or degree, principal engineer or past or current supervisor or higher. Applicable Radiation Worker qualification, TS8072I-TS8081I (Protected: Ref. NRC IR 98-03/CR 98-1743).	Routinely engaged in engineering-related activities.
ENS Communicator	Applicable Radiation Worker qualification.	Current or past experience in Operations, Operations Training, Engineering, or Licensing.
Environmental Analyst	No specific position prerequisites.	Background in Chemistry or Radiation Protection.
EOF Access Control Personnel	No specific position prerequisites.	Routinely engaged in inprocessing access control activities.

PREREQUISITE COURSE NUMBERS

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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
EOF Coordinator	Knowledge of Station HP programs (e.g., dosimetry, access controls) and radiological consequence assessment (e.g., core damage, effluent pathways, release components).	Personnel with appropriate technical skills and experience as determined by Emergency Preparedness Department management.
EOF Support Staff	No specific position prerequisites.	No specific background requirement.
ERO Technical Liaison	Working knowledge of Seabrook Station (construction and system features).	No specific background requirement.
Health Physics Coordinator	HP experience. Applicable Radiation Worker qualification.	Present or past experience with Radiation Protection-related duties.
HPN Communicator	No specific position prerequisites.	Personnel with appropriate knowledge of nuclear power plant operations as determined by EP Department management.
I&C Personnel	Completed appropriate department qualification program. Applicable Radiation Worker qualification, Respiratory Protection qualification.	I&C Department personnel (except bargaining unit), or Training Department personnel for this discipline.
I&C Support Engineer	Engineering background or degree. Applicable Radiation Worker qualification.	Routinely engaged in engineering related activities.
I&C Technicians	Applicable Radiation Worker qualification, Respiratory Protection qualification.	Station I&C Technicians.

PREREQUISITE COURSE NUMBERS

GT1074J	= FIREHAWK SCBA Use	TS8072I-TS8081I	= Plant Operations Course	HP 1044Z	= HP Fundamentals
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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Industry Liaison	No specific position prerequisites.	No specific background requirement.
Information Management (IM) Specialist	No specific position prerequisites	Routinely engaged in IM related activities.
Joint Information Center Support Staff	No specific position prerequisites.	No specific background requirement.
Joint Information Center Technical Advisors	Working knowledge of Seabrook Station (construction and system features).	No specific background requirement.
Junior Radiation Protection Technician	Applicable Radiation Worker qualification, Respiratory Protection qualification, HP1066Z, HP1067Z, HP6002I.	Personnel with appropriate experience and training as determined by Radiation Protection Department management.
Licensing Coordinator	No specific position prerequisites.	Routinely engaged in licensing-related activities.
Maintenance Coordinator	Applicable Radiation Worker qualification.	Appropriate management or supervisory experience as determined by Maintenance Group management.
Material and Logistic Coordinator	Ability to use the current corporate purchasing system.	Routinely engaged in purchasing and procurement-related activities.
Mechanical Maintenance Personnel	Completed appropriate department qualification program. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Mechanical Maintenance Department personnel (except bargaining unit), or Training Department personnel for this discipline.
Mechanics	Applicable Radiation Worker qualification, Respiratory Protection qualification.	Station Mechanics.

PREREQUISITE COURSE NUMBERS

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TABLE 1 ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])		
POSITION TITLE	**PREREQUISITES**	**POTENTIAL CANDIDATES BACKGROUND**
NSSS Support Engineer	Engineering background or degree. Applicable Radiation Worker qualification.	Routinely engaged in engineering related activities.
Nuclear Safety Advisor	Engineering background, degree, or PRA experience. Applicable Radiation Worker qualification.	Routinely engaged in engineering or PRA activities.
Nuclear Systems Operator	Completion of appropriate department qualifications for standing watch. Applicable Radiation Worker qualification, GT1070I/GT5004C (Protected: Ref. SEP911077), Respiratory Protection qualification.	Nuclear Systems Operator.
Offsite Monitoring Communicator	No specific position prerequisites.	No specific background requirement.
Offsite Monitoring Coordinator	No specific position prerequisites.	Personnel with appropriate experience and training as determined by RP or Chemistry Department management.

PREREQUISITE COURSE NUMBERS

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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Offsite Monitoring/Sampling Team Personnel	HP1044Z, RW1032Z or equivalent (HP Fundamentals). Applicable Radiation Worker qualification, Respiratory Protection qualification.	Engaged in Radiation Protection-related activities either on a routine basis or during outages.
Offsite Monitoring/Sampling Team Driver	Valid driver's license. Applicable Radiation Worker qualification, Respiratory Protection qualification.	No specific background requirement.
Operations Technician	Past or current SRO license at Seabrook Station or current licensed operator training instructor with SRO certification at Seabrook Station. Applicable Radiation Worker qualification.	Routinely engaged in operations-related activities, including licensed operator training.
OSC Coordinator	Past or current SRO license for Seabrook Station. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Past or current Unit Supervisors jointly assigned by Operations and Emergency Preparedness.
Raddose Operator	No specific position prerequisites (Protected: Ref. NRC IR86-18 [5]).	No specific background requirement.

PREREQUISITE COURSE NUMBERS

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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Radiation Protection Technician	Completed appropriate department qualification program. Applicable Radiation Worker qualification, Respiratory Protection qualification, GT1074J, HP1075I.	Radiation Protection.
Radiological Assistant	HP1044Z, RW1032Z or equivalent (HP Fundamentals). Applicable Radiation Worker qualification.	Engaged in Radiation Protection-related activities either on a routine basis or during outages.
Radiological Controls Coordinator	HP experience. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Engaged in Radiation Protection-related activities either on a routine basis or during outages.
Reactor Engineer	Applicable Radiation Worker qualification.	Routinely engaged in reactor engineering-related activities.
Response Manager	TS8072I-TS8081I or past or current SRO license or certification, past or current supervisor or higher, documented concurrence of assignment by the Site Vice President. (Protected: Ref. NRC IR 98-03 and CR 98-1743).	Appropriate management or supervisory experience as determined by senior station management.
Security Coordinator	Security Department Manager, Supervisor or Senior Analyst.	Routinely engaged in security-related activities.
Security Leader	Security department supervisor or security shift coordinator.	Routinely engaged in security-related activities.

PREREQUISITE COURSE NUMBERS

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TABLE 1 ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])		
POSITION TITLE	**PREREQUISITES**	**POTENTIAL CANDIDATES BACKGROUND**
Security Personnel	Completed appropriate department qualification program per Security Plan. Applicable Radiation Worker qualification, Respiratory Protection qualification	Per Security Plan
Short Term Emergency Director	Licensed SRO. Applicable Radiation Worker qualification, Respiratory Protection qualification (Protected: Ref. NRC 86-18-01)	Shift Manager, Unit Supervisor.

PREREQUISITE COURSE NUMBERS

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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Site Emergency Director	Applicable Radiation Worker qualification, TS1003C, SRO or TS8072I-TS8081I Plant Operations Course (Protected: Ref. NRC IR 86-18 (4) and ISEG #R8905-003), past or current SRO license or certification, past or current supervisor or higher (Protected: Ref. NRC IR 98-03 and CR 98-1743).	Appropriate management or supervisory experience as determined by senior station management.
Specialty Technical Assistant (Protected: Ref. NRC IR 88-09)	Applicable Radiation Worker qualification.	Individuals selected based on unique technical knowledge, skills or abilities.
Storekeeper	Routinely engaged in stores-related activities. Applicable Radiation Worker qualification, Respiratory Protection qualification.	Materials Management Department personnel.
Technical Assistant	Working knowledge of Seabrook Station (construction and system features), past or current SRO license or certification, licensed operator training experience. (Protected: Ref. NRC IR 98-03 and CR 98-1743).	Personnel with appropriate experience and training as determined by Training Dept. management.

PREREQUISITE COURSE NUMBERS

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TABLE 1
ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])

POSITION TITLE	PREREQUISITES	POTENTIAL CANDIDATES BACKGROUND
Technical Services Coordinator	Applicable Radiation Worker qualification, SRO or TS8072I-TS8081I Plant Operations Course (Protected Ref. ISEG# R8905-003), or past or current SRO license or certification, assigned from Engineering, Maintenance, Work Control or Outage Management (Protected: Ref. NRC IR 98-03 and CR 98-1743).	Personnel with appropriate knowledge and experience as determined by the assignee's department management with concurrence of EP department management.
Technical Specialist Coordinator (Protected: Ref. NRC IR 88-09)	Applicable Radiation Worker qualification, Respiratory Protection qualification.	No specific background requirement.
Training Center Staff	Operations Training Instructor.	Operations Training Department Personnel.
TSC Engineer - Electrical	Applicable Radiation Worker qualification.	Present or past experience with electrical engineering-related duties.
TSC Engineer - Mechanical	Applicable Radiation Worker qualification.	Present or past experience with mechanical engineering-related duties.
TSC Logkeeper	Applicable Radiation Worker qualification.	No specific background requirement.
TSC RMD Personnel	Working knowledge of Records Management Department (RMD) manuals & procedures. Applicable Radiation Worker qualification.	RMD personnel.

PREREQUISITE COURSE NUMBERS

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TABLE 1 ERO ASSIGNMENT PREREQUISITES and BACKGROUND (Protected: Ref. NRC IR 85-32 [15b])		
POSITION TITLE	**PREREQUISITES**	**POTENTIAL CANDIDATES BACKGROUND**
Work Control Supervisors	Licensed SRO. Applicable Radiation Worker qualification Respiratory Protection qualification.	Individuals assigned by Operations.
Work Planner – Mechanical/Valve Maintenance	Applicable Radiation Worker qualification.	Experienced work planners assigned by the Maintenance Department.
Work Planner – Electrical/I&C Maintenance	Applicable Radiation Worker qualification.	Experienced work planners assigned by the Maintenance Department.

PREREQUISITE COURSE NUMBERS

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RW1032Z	= HP Fundamentals for Radwaste	TS1003C	= Mitigation of Core Damage		

TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Administrative Services Coordinator (STC)	Alert through General Emergency	Emergency Operations Facility	Response Manager	Provides administrative support and obtains additional resources to support the emergency effort.
Assembly Area Coordinator (S)	Alert through General Emergency (normal work hours only)	Seabrook Station Conference Center	Administrative Services Coordinator	Coordinates operation of the Assembly Area for backup ERO responders and maintenance technicians during normal work hours.
BOP Support Engineer (S)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists Engineering Coordinator in performing engineering assessment.
Chemistry Coordinator (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Coordinates post-accident sampling and analysis functions during an emergency.
Chemistry Technician (OS and STC)	Alert through General Emergency	Operational Support Center	Chemistry Coordinator	Obtains and analyzes post-accident samples.
Control Room Communicator (OS)	Unusual Event	CR	Short Term Emergency Director	Assists STED with NRC and primary responder notification. Maintains ENS communications.
Control Room Operators (S)	Alert through General Emergency	Operational Support Center	OSC Coordinator	One is dispatched to the Control Room to staff the 4-way data link and one staffs 4-way data link in the OSC.
Document Control Center Coordinator (S)	Alert through General Emergency	Emergency Operations Facility	Administrative Services Coordinator	Coordinates retrieval of documents maintained in the EOF Document Control Center.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Dose Assessment Personnel (S)	Alert through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Provides administrative and clerical support to the Dose Assessment Specialist.
Dose Assessment Specialist (STC)	Alert through General Emergency	Emergency Operations Facility	EOF Coordinator	Determines projected/actual offsite dose conditions. Coordinates the evaluation of sample analysis data.
Dosimetry Records Personnel (S)	Alert through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Issues dosimetry and tracks dose reporting for emergency response personnel.
Electrical Maintenance Personnel (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Performs electrical system repair and corrective action activities.
Electrical Support Engineer (S)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists Engineering Coordinator in performing engineering assessment.
Electricians (S)	Staffing Based on Event	Assembly Area/ Operational Support Center	Electrical Maintenance Personnel	Perform repair and corrective actions as directed by the OSC Coordinator.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Emergency News Manager (P)	Unusual Event through General Emergency	Seabrook Station News Service or Joint Information Center	Site Emergency Director or Response Manager	Manages the emergency public information function, information dissemination, media and public relations. Coordinates emergency public information and rumor control with state and federal public information officials.
Emergency Operations Manager (S)	Alert through General Emergency	Technical Support Center	Site Emergency Director	Provides overall direction and coordination of emergency response activities performed by Operations Department personnel.
Engineering Coordinator (STC)	Alert through General Emergency	Technical Support Center	Technical Services Coordinator	Coordinates engineering assessment and technical support activities conducted from the TSC. Performs Severe Accident Management Evaluator functions.
ENS Communicator (S)	Alert through General Emergency	Technical Support Center	Operations Technician	Maintains communications with NRC.
Environmental Analyst (S)	Alert Through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Conducts radiological analysis of environmental samples.
EOF Access Control Personnel (S)	Alert Through General Emergency	Emergency Operations Facility	Security Coordinator	Controls access to Emergency Operations Facility
EOF Coordinator (P)	Unusual Event through General Emergency	Emergency Operations Facility	Response Manager	Coordinates radiological and protective action assessments and performs state notifications from the EOF.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
EOF Support Staff (S)	Alert through General Emergency	Emergency Operations Facility	Administrative Services Coordinator	Provides administrative and clerical support.
ERO Technical Liaison (P)	Unusual Event through General Emergency	Control Room/ Emergency Operations Facility	Site Emergency Director or Response Manager	Notifies and interacts with the New Hampshire Public Utilities Commission, Massachusetts Emergency Management Agency and Maine Emergency Management Agency staff.
Health Physics Coordinator (P)	Unusual Event through General Emergency	Control Room/ Technical Support Center	Site Emergency Director	Coordinates radiological and protective action assessment activities conducted from the TSC.
HPN Communicator (S)	Alert through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Maintains Health Physics Network communication with the NRC.
I&C Technicians (S)	Staffing Based on Event	Assembly Area/ Operational Support Center	I & C Personnel	Perform repair and corrective actions as directed by the OSC Coordinator.
I&C Personnel (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Performs instrument and control system repair and corrective action activities.
I&C Support Engineer (S)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists Engineering Coordinator in performing engineering assessment.
Industry Liaison (S)	Alert through General Emergency	Emergency Operations Facility	Admin. Services Coordinator	Coordinates interfaces with industry organizations and Joint Owners during an emergency.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Information Mgmt. (IM) Specialist (S)	Alert through General Emergency	Emergency Operations Facility	Admin. Services Coordinator	Performs or coordinates corrective actions as needed for IM equipment in emergency facilities.
Joint Information Center Support Staff (S)	Alert through General Emergency	Joint Information Center	Emergency News Manager	Assists the Emergency News Manager with performing functions of the Joint Information Center.
Joint Information Center Technical Advisors (S)	Alert through General Emergency	Joint Information Center	Emergency News Manager	Obtains technical information from the EOF, updates Emergency News Manager, reviews news statements for technical accuracy, assists with news briefings. This position may also perform the duties of the SSNS Technical Advisor for an Unusual Event.
Junior Radiation Protection Technician (STC)	Alert through General Emergency	Operational Support Center	Radiological Controls Coordinator	Performs health physics tasks as assigned by the Radiological Controls Coordinator.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Licensing Coordinator (S)	Alert through General Emergency	Emergency Operations Facility	Administrative Services Coordinator	Coordinates interfaces with regulatory agencies during an emergency.
Maintenance Coordinator (STC)	Alert through General Emergency	Technical Support Center	Technical Services Coordinator	Coordinates maintenance input to repair and corrective action analysis and decision making conducted from the TSC.
Materials and Logistics Coordinator (S)	Alert through General Emergency	Emergency Operations Facility	Administrative Services Coordinator	Provides the EOF staff with the resources necessary to complete assignments. Assists in acquisition of resources not immediately available.
Mechanical Maintenance Personnel (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Performs mechanical system repair and corrective action activities.
Mechanics (S)	Staffing Based on Event	Assembly Area/ Operational Support Center	Mechanical Maintenance Personnel	Perform repair and corrective actions as directed by the OSC Coordinator.
NSSS Support Engineer (S)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists Engineering Coordinator in performing engineering assessment.
Nuclear Systems Operator (S)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Performs operational activities directed by the TSC.

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Offsite Monitoring Communicator (S)	Alert through General Emergency	Emergency Operations Facility	Offsite Monitoring Coordinator	Relays messages to and from offsite monitoring teams and maintains a log of team locations and reported radiological data.
Offsite Monitoring Coordinator (STC)	Alert through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Coordinates offsite monitoring and sampling during an emergency.
Offsite Monitoring/ Sampling Personnel (HP) (STC)	Alert through General Emergency	Emergency Operations Facility	Offsite Monitoring Coordinator	Performs emergency environmental sampling and monitoring as directed by the Offsite Monitoring Coordinator.
Offsite Monitoring/ Sampling Personnel (Utility) (STC)	Alert through General Emergency	Emergency Operations Facility	Offsite Monitoring Coordinator	Assists offsite monitoring/sampling personnel (HP) and drives offsite monitoring/sampling vehicle.
Operations Technician (P)	Unusual Event through General Emergency	Control Room/ Technical Support Center	SED or Emergency Operations Manager	Relieves the Control Room of NRC notification and communications responsibilities. Assists the Emergency Operations Manager. Performs Severe Accident Management Evaluator functions.
OSC Coordinator (STC)	Alert through General Emergency	Operational Support Center	Maintenance Coordinator	Directs emergency response activities performed at and by the OSC.
Radiation Protection Technician (OS and STC)	Alert through General Emergency	Operational Support Center	Radiological Controls Coordinator	Performs onsite/in-plant surveys, provides HP coverage, implements radiological exposure controls, performs personnel monitoring/decontamination.

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ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Radiological Assistant (S)	Alert through General Emergency	Emergency Operations Facility	Offsite Monitoring Coordinator	Coordinates radiological control measures at the EOF.
Radiological Controls Coordinator (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Directs implementation of in-plant radiation protection measures associated with Station emergency response efforts.
Raddose Operator (S)	Alert through General Emergency	Emergency Operations Facility	Dose Assessment Specialist	Operates the Raddose-V dose assessment program computer
Reactor Engineer (STC)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Analyzes reactor core and plant transient response. Provides core protection recommendations. Performs Severe Accident Management Evaluator functions.
Response Manager (P)	Unusual Event through General Emergency	Emergency Operations Facility	Chief Nuclear Officer	Provides overall direction to the emergency response organization. Authorizes notifications and protective action recommendations to the states.* Approves news releases.* Authorizes requests for industry assistance.* Primary interface with state and federal emergency response officials. *Responsibilities that cannot be delegated. (Protected: Ref. NRC IR85-32 [5])

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ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Security Coordinator (S)	Alert through General Emergency	Emergency Operations Facility (or site Incident Command Center for an HAB event)	Response Manager (when reporting to the EOF)	Coordinates security response actions during an emergency. Advises the Response Manager on potential security issues pertaining to an event such as tampering or sabotage of plant equipment.
Security Leader (S)	Alert through General Emergency	Technical Support Center	Site Emergency Director	Coordinates security response onsite with Technical Support Center staff
Security Personnel (S)	Unusual Event through General Emergency	Per Security Plan Procedures	Security Coordinator	Implements Security Department procedures for a declared radiological emergency.
Short Term Emergency Director (STED) (OS)	Unusual Event through General Emergency	Control Room	Site Emergency Director	Makes initial emergency classification and notifications.* Initiates activation of the emergency response organization.* Approval of protective action recommendations to the states, reclassification of the emergency, authorization of workers to exceed 10CFR20 radiation exposure limits, and overall responsibility for directing the Station emergency response until relieved by the Site Emergency Director.* *Responsibilities that cannot be delegated. (Protected: Ref. NRC IR 86-18 [01])

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TABLE 2
ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Site Emergency Director (P)	Unusual Event through General Emergency	Control Room/ Technical Support Center	Response Manager	Relieves the STED of overall responsibility for directing the onsite emergency response.* Assumes responsibility for emergency classification.*Authorizes notifications and protective action recommendations to the states, approves news releases and requests industry emergency response assistance until relieved by the Response Manager. * Authorizes workers to exceed 10CFR20 radiation exposure limits. *Performs Severe Accident Management Decision Maker functions. *Responsibilities that cannot be delegated. (Protected Ref. NRC IR 86-18[01])
Specialty Technical Assistant (S)	Alert through General Emergency	Technical Support Center, Operational Support Center or Emergency Operations Facility	Tech. Services Coord., Tech. Specialist Coord. or Admin Services Coord.	Called in as needed to the TSC, OSC or EOF to provide specific skills, knowledge and expertise required during an emergency.
Storekeeper (S)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Issues tools and equipment to emergency repair and corrective action teams.
Technical Assistant (STC)	Alert through General Emergency	Emergency Operations Facility	Response Manager	Coordinates technical assessment and support activities conducted from the EOF.

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ERO POSITION INFORMATION

POSITION TITLE AND TYPE	ACTIVATION LEVEL	RESPONSE LOCATION	REPORTS TO	PRIMARY RESPONSIBILITIES
Technical Services Coordinator (P)	Unusual Event through General Emergency	Control Room/ Technical Support Center	Site Emergency Director	Monitors the TSC activation process and assists the Site Emergency Director in managing and coordinating onsite emergency response efforts.
Technical Specialist Coordinator (STC)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Provides assistance in the evaluation of, and preparations for, repair and corrective actions.
Training Center Staff (S)	Alert through General Emergency	Emergency Operations Facility	Technical Assistant	Assists the Technical Assistant with monitoring plant operational data.
TSC Engineer – Electrical (STC)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists the Engineering Coordinator with engineering assessment and technical support. Maintains TSC status boards.
TSC Engineer – Mechanical (STC)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Assists the Engineering Coordinator with engineering assessment and technical support. Maintains TSC status boards.
TSC Logkeeper (S)	Alert through General Emergency	Technical Support Center	Site Emergency Director	Maintains log and provides administrative support for the Site Emergency Director.
TSC RMD Personnel (S)	Alert through General Emergency	Technical Support Center	Engineering Coordinator	Coordinates retrieval of documents maintained in the TSC Document Control Center.
Work Control Supervisor – OSC (S)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Performs duties as assigned by the OSC Coordinator

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TABLE 2 ERO POSITION INFORMATION				
POSITION TITLE AND TYPE	**ACTIVATION LEVEL**	**RESPONSE LOCATION**	**REPORTS TO**	**PRIMARY RESPONSIBILITIES**
Work Control Supervisor – On-shift (OS)	Unusual Event through General Emergency	Control Room	Short Term Emergency Director (STED)	Assists the Short Term Emergency Director with implementing emergency response actions in the Control Room and initial notification of offsite authorities.
Work Control Supervisor – TSC (S)	Alert through General Emergency	Operational Support Center	OSC Coordinator	Dispatched to the TSC to report to the Maintenance Coordinator and to staff the 4-way data link in the TSC.
Work Planner – MM/MV (S)	Alert through General Emergency	Operational Support Center	Tech Specialist Coordinator	Assemble work packages for mechanical maintenance and valve repair teams deployed from the OSC as directed by the Technical Specialist Coordinator
Work Planner – ME/IC (S)	Alert through General Emergency	Operational Support Center	Tech Specialist Coordinator	Assemble work packages for electrical maintenance and instrumentation and control repair teams deployed from the OSC as directed by the Technical Specialist Coordinator.

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SUMMARY OF CHANGES

Rev. 64:

Added Security Personnel to Table 1 which had been inadvertently deleted in a previous revision (AR 2092861).

Rev. 63:

Replaced some course numbers with qualification. Removed reference to GT4000I, Enhanced Radiation Worker (AR 1888575).

Revised to allow Engineering Coordinator, Response Manager, and Site Emergency Director to be past or current supervisor (AR 1928340).

Revised Assembly Area Coordinator potential candidate background.

Added Environmental Analysts which replaces the services provided by a vendor.

Rev. 62:

In Appendix A changed media center to Joint Information center, added new position EOF Access Control Personnel (AR#1721945)

Changed Table 1 Operations Technician prerequisite to read, Past or current SRO license at Seabrook Station or SRO certification at Seabrook Station and current operations training instructor. Also changed potential candidate background to read, Routinely engaged in operations-related activities, including operations training. (AR 1861084)

Changed Table 1 Engineering Coordinator prerequisite to read, Engineering background or degree, principal engineer or supervisor or higher.

APPENDIX D

LETTERS OF AGREEMENT WITH EMERGENCY

RESPONSE ORGANIZATIONS

APPENDIX D

LETTERS OF AGREEMENT

TABLE OF CONTENTS

(Protected: Ref. NRC IR 85-32[7])

(Protected: Ref. NRC IR 85-32[12])

(Protected: Ref. FPL Common Letter L-2005-214)

NOTE 1: The INPO emergency assistance agreement is initiated by INPO with its member utilities. The agreement is certified to remain in effect annually by INPO by letter of agreement to its member utilities. The current letter of certification is posted annually by INPO on the INPO website under emergency preparedness. For that reason, the current INPO letter of agreement is not maintained in the SSREP.

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Agreement") made this 10th day of May, 2016 effective as of **June 1, 2016**, by and between Portsmouth Land Acquisition, LLC, having its principal place of business at 300 Gay Street, in Manchester, in the State of New Hampshire ("Lessor") and NextEra Energy Seabrook, LLC, a Delaware limited liability company, acting for itself and as agent for the Seabrook Joint Owners, with its principal place of business at Seabrook Station, Route 1, Seabrook, New Hampshire ("Lessee").

WHEREAS, the Lessor and Lessee desire to enter into this lease agreement covering the use by Lessee of certain facilities located at Lessor's property at 400 Route 1 Bypass, in the City of Portsmouth, New Hampshire (property), for offsite radiological monitoring and decontamination in connection with an actual or simulated emergency event at Seabrook Station.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Lessor and Lessee agree as follows:

1. TERM

(a) The term of this Agreement shall be three (3) years, beginning on **June 1, 2016**, and expiring on **May 31, 2019**, subject to early termination by either party pursuant to the terms of this Agreement. Lessee shall have the option to extend the lease for an additional one (1) year period unless terminated by either party subject to the terms of paragraph 1(b) below.

(b) Notwithstanding the foregoing, and in addition to such other rights of termination as may be exercised by the parties under the terms of this Lease, either Lessor or Lessee shall have the right to terminate this Lease at any time during the term or any extended term, but only upon not less than ninety (90) days prior written notice to the other. If terminated by the Lessor, Lessor will make a good faith effort to identify another lessor owned property suitable for the uses described in this agreement as mutually agreed by Lessor and Lessee.

2. RENT

(a) Lessee shall pay to Lessor, during the first two years of the term, base monthly rent in the amount of **$1,300.00**, payable in advance on or before the first day of each and every month.

(b) The monthly rent will be reviewed after two years and will be adjusted, said adjustment to be effective on May 1st of the third year of the term, to reflect the percentage change, if any, in the Consumer Price Index for All Urban Consumers - All Items (CPI-U) published by the U.S. Department of Labor Bureau of Labor Statistics, from that in effect on January 1, 2015, to that in effect on May 1st of the third year. In no event, however, shall such adjustment result in the monthly rent being less than the base monthly rent stated in paragraph (a) of this Section 2.

3. LEASED PREMISES AND APPURTENANCES

(a) Lessor leases to Lessee, subject to compliance with all the terms and conditions hereof, certain land and facilities at Lessor's property, located at 400 Route 1 Bypass in the City of Portsmouth, in the County of Rockingham and State of New Hampshire. Unless otherwise stated in this Lease, Lessee's lease and use of the Leased Premises shall be non-exclusive, with Lessor reserving the full right to use and/or allow third parties to use the Leased Premises for all purposes in connection with its operation of its normal business at 400 Route 1 Bypass in the City of Portsmouth, NH.

(i) The land comprising the travel and parking areas for use as Lessee's offsite radiological monitoring and decontamination area (to include Remote Monitoring Area Trailer, Vehicle and Personnel Monitoring Areas, Contaminated Parking Area and Decontamination Shower Trailer);

(ii) The exclusive use and occupancy of the ground space occupied by the Lessee's existing so-called Remote Monitoring Area Trailer (the "RMA Trailer"); provided, however, that either party reserves the right at any time during the term of this Lease to require Lessee, at Lessee's sole expense, to relocate the RMA Trailer to another mutually agreeable location at the property, in which event the ground space occupied by Lessee's relocated RMA Trailer shall become part of the Leased Premises in place of the ground space formerly occupied by said Trailer;

(iii) The exclusive use and occupancy of the ground space occupied by the Lessee's so-called Decontamination Shower trailer housing separate male and female shower facilities subject to the same terms in Paragraph 3 (ii).

(b) There is additionally leased to Lessee, as appurtenant to the Leased Premises, certain non-exclusive rights and interests more specifically described below and as shown, where appropriate, on Exhibit A, subject to Lessee's compliance with all the terms and conditions of this Lease:

(i) The non-exclusive right to pass and repass with personnel and vehicles over and across Lessor's property as reasonably necessary or required for ingress and egress to and from the Leased Premises and the Route 1 Bypass; such ingress and egress to and from Lessee' offsite radiological monitoring and decontamination area shall be via the existing access road leading to the property.

(c) Unless otherwise specified or where the context otherwise requires, all references in this Lease to the Leased Premises shall be deemed to include the appurtenant rights and interests set forth in paragraph (b) of this Section 3.

4. USE OF LEASED PREMISES

(a) Lessee shall have the right to access, use and occupy the Leased Premises as provided for under this Lease for offsite radiological monitoring and decontamination of evacuated onsite personnel and vehicles in connection with an actual or simulated emergency event at Seabrook Station, and for uses which are directly incidental to such use. No other, different or additional use or purpose is permitted to be made of the Leased Premises by Lessee.

(b) Lessee shall be responsible, at Lessee's sole expense, to comply with all Federal, state and local laws, codes, ordinances and regulations in effect during the term and extended term of this Lease applicable to the use by Lessee of the Leased Premises, and shall secure and maintain in effect throughout the term and any extended term of this Lease all Federal, state and local government and regulatory permits, licenses and approvals applicable to Lessee's use and occupancy of the Leased Premises. Lessee shall not authorize or permit the Leased Premises to be used for any illegal or unlawful purpose. No hazardous materials, hazardous substances or hazardous waste of any kind shall be used, stored or consumed on the Leased Premises by or with the permission of Lessee at any time without prior notice to and the prior consent of Lessor; provided, however, that this provision shall not be deemed or construed to prohibit the use and occupancy of the Leased Premises for the purposes and activities authorized under paragraph (a) above.

(c) In the event of an actual radiological emergency at Seabrook Station requiring use of the Leased Premises, Lessee agrees to provide notice to Lessor's management as promptly as possible of the emergency and as to when personnel and vehicle evacuation from Seabrook Station will commence. In the aforesaid event, Lessor agrees to allow Lessee exclusive use of as much of the property as required to operate the remote monitoring and decontamination facility. In the event use of the Leased Premises is required for a previously scheduled and noticed emergency response drill or simulated radiological emergency exercise, Lessee shall be obligated to provide reasonable advance notice to Lessor of the date, time and expected duration of the drill or exercise, and such drill or exercise shall be conducted in a manner which does not adversely impact Lessor's normal business operations.

5. CONDITION OF LEASED PREMISES

The Leased Premises are leased to and accepted by the Lessee in the condition existing as the date of the commencement of the term of this Lease, "AS IS" and subject to all applicable state and municipal zoning and other laws, codes, ordinances and regulations. Lessee acknowledges that neither Lessor, nor any employee, agent or representative of Lessor, has made any representation or warranty with respect to the condition of the Leased Premises or the suitability of the Leased Premises for use by the Lessee.

6. TAXES

Lessor will be responsible for the payment of all real property taxes assessed against the land and buildings comprising the Leased Premises, or the land and buildings of which the Leased Premises are a part and included within the tax parcel(s) assessed. Lessee will be responsible for the payment of all taxes of any kind assessed against or levied upon the fixtures, equipment and other personal property of the Lessee on or in the Leased Premises, or directly attributable to Lessee's structures and other improvements installed in or on the Leased Premises.

7. UTILITIES AND SERVICES

(a) Lessor shall be responsible for supplying water for the Decontamination Shower Trailer stationed on the Leased Premises. Lessee shall reimburse Lessor for the costs of any water used for the purpose of operating the offsite radiological monitoring and decontamination area for either an actual or simulated event.

(b) Lessee shall be responsible for the cost of electrical power service to the Decontamination Shower Trailer and any other facility required for operation of the Lessee's offsite radiological monitoring and decontamination area.

(c) Snow plowing and removal from the access roadways, parking areas and walkways associated with the Leased Premises shall be the responsibility of Lessor. If additional snow plowing and removal services attributable specifically to Lessee's use of the Lease Premises are requested or required, Lessor shall be reimbursed at cost for such services by Lessee.

8. MAINTENANCE AND REPAIRS

(a) Lessor shall be responsible for general maintenance and repair of the Leased Premises, in accordance with applicable building codes and standards, but this shall not include responsibility for any post-decontamination clean up for which Lessee has responsibility pursuant to Section 11(e) below.

(b) Lessee shall be responsible for the maintenance and repair of all fixtures, equipment and structures and other facilities installed or maintained by Lessee in or on the Leased Premises, including but not limited to Lessee's RMA Trailer and Decontamination Shower Trailer.

9. ALTERATIONS AND LESSEE'S PERSONAL PROPERTY

(a) Lessee will make no structural changes, or other renovations and changes, to the Leased Premises without the prior written consent of the Lessor, such consent not to be unreasonably withheld.

(b) Upon the expiration or earlier termination of this Lease, Lessee will promptly remove at its sole expense its equipment, structures, facilities and all other personal property and those of all persons claiming under it and peaceably yield up the Leased Premises to the Lessor in good order and condition, reasonable wear and tear excepted.

10. INDEMNITY AND SECURITY

(a) Lessee will indemnify the Lessor and hold it harmless from and against any and all loss, cost, damage, liability or expense, including attorney's fees, by reason of bodily injury, including death, and property damage suffered by any person, including Lessor, its employees and others, caused by or arising out of the Lessee's use and occupancy of the Leased Premises or the Lessee's performance hereunder.

(b) Lessor shall have no responsibility to provide any security services or facilities at the Leased Premises or otherwise guard or protect the Leased Premises from unauthorized entry or the acts or omissions of any trespassers or other third parties, including damage to or theft of any property of the Lessee on the Leased Premises, or to the RMA Trailer, Decontamination Shower Trailer, or any equipment stored in said Trailers. All property of any kind of the Lessee on the Leased Premises shall be at the sole risk of the Lessee.

(c) Lessee shall hold Lessor harmless from any liability for labor or material supplied for work done by or for Lessee, and shall keep the Leased Premises free and clear of all mechanics' liens or liens of any kind for work done by or for Lessee, provided, however, that in no event shall Lessee be required to hold Lessor harmless for work Lessor performs or causes to have performed under this Lease.

(d) Lessor shall hold Lessee harmless from and against any and all loss, cost, damage, liability or expense, including attorney's fees, for liabilities incurred by Lessee as a result of Lessor's negligent or willful failure to perform its obligations under this Contract.

(e) Lessee agrees to reimburse Lessor for the payment of wages and other benefits to employees of Lessor who are required to be present at the Leased Premises as a result of Lessee's use of the Leased Premises under this Lease during either an actual radiological emergency or an emergency drill or simulation exercise.

(f) In the event of an actual radiological emergency at Seabrook Station which requires any use by Lessee of the Leased Premises for decontamination activities, Lessee shall be responsible for the post-decontamination clean up of the Leased Premises and any other parts or portions of the property of the Lessor affected by the Lessee's decontamination activities, such clean up to meet all standards under applicable Nuclear Regulatory Commission regulations and other applicable environmental or other laws and regulations, and to be at the sole cost and expense of Lessee.

(g) Lessee is responsible, at Lessee's sole cost and expense, for the remediation of any and all contamination to the environment comprising the Leased Premises and its surrounding areas, including but not limited to air, soil and water, arising out of or caused by or from Lessee's use or occupancy of the Leased Premises or the installation, operation and maintenance by Lessee of any approved Lease facilities or appurtenances. In the event of a release by Lessee or Lessee's facilities or appurtenances of any substance(s) or material(s) that adversely impacts the environment, Lessee is responsible at its sole cost and expense to return the environment to a condition reasonably acceptable to Lessor and to that required by applicable regulatory standards.

11. LESSEE'S REPRESENTATIVE

Lessee represents to Lessor that (i) the Seabrook Joint Owners are all of the participant parties to a certain Agreement for Joint Ownership, Construction and Operation of New Hampshire Nuclear Units, dated May 1, 1973, as amended (the "Joint Ownership Agreement") and have, pursuant to a certain Seabrook Project Managing Agent Operating Agreement made as of June 29, 1992, transferred and delegated to NextEra, as managing agent, authority to act for and on their behalf in the management of the operations of Seabrook Station, and (ii) the entering into and performance of this Lease by NextEra, as managing agent for the Seabrook Joint Owners, is within the scope of the management authority delegated to NextEra by the Seabrook Joint Owners. Lessee agrees that Lessor may rely upon such representations and deal exclusively with NextEra in all matters arising under or in connection with this Lease, unless and until such time as Lessor shall have been informed in writing by the Lessee of a transfer of NextEra's managing agent authority to another entity.

12. ASSIGNMENT

Lessee may not assign this Lease in whole or in part or sublet the Leased Premises or any part thereof without the prior written consent of the Lessor, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, each Seabrook Joint Owner reserves the right, in connection with a comparable assignment or transfer of its ownership interest under the Joint Ownership Agreement, to assign its interest hereunder, in whole or in part, to any other entity which is or becomes a participant party under the Joint Ownership Agreement.

13. INSURANCE

(a) Lessee will provide and maintain the following insurance during the initial and any extended term of this Lease: (i) Comprehensive General Liability Insurance with limits of not less than $1,000,000 for injury or death to any one person; not less than $1,000,000 for injuries or deaths from any one accident, and not less than $1,000,000 for property damage, naming the Lessor as an additional insured with respect to all third party claims for property damage, death or personal injury, and (ii) Worker's Compensation Insurance as required by applicable law.

(b) Lessee shall annually, upon request, evidence to the Lessor in form satisfactory to the Lessor, that it is complying with the foregoing requirements with respect to insurance by causing its insurance broker to issue certificates of insurance, and shall upon request of the Lessor from time to time furnish copies of the policies to the Lessor or its attorneys.

14. CASUALTY AND CONDEMNATION

(a) In the event the whole or a substantial portion of the Leased Premises shall be lawfully condemned or taken by any public authority such as to reasonably render the Leased Premises unusable for the intended purposes as an offsite radiological monitoring area and decontamination facility, this Lease shall automatically terminate without further act of either party on the date when title to or possession of the Leased Premises shall be taken by such public authority, whichever first occurs, and each party shall be relieved of any further obligation to the other under this Lease except that Lessor shall rebate to Lessee a pro rata portion of any rent paid in advance. Any award for the condemnation or taking of all or any part of the Leased Premises shall be payable to Lessor and be the property of the Lessor. If a lesser portion of the Leased Premises is condemned or taken such as to still reasonably allow the intended use of the Leased Premises, then Lessee shall have the right to elect to continue this Lease in effect as to the remainder of the Leased Premises, with the parties to agree on an equitable adjustment in the rent to be paid by Lessee for the remainder.

(b) In the event that any portion of the Leased Premises is damaged or destroyed, partially or totally, by fire or other casualty, such that same becomes unusable in whole or in part, either party may, at its option and upon written notice to the other party, terminate this Lease, effective on the date on which such notice is received.

15. DEFAULT AND TERMINATION

The failure by Lessee to make any payment of rent when due, or the failure of Lessee to observe or perform any other term or condition of this Lease to be observed or performed by Lessee, and the continuation of such failure for a period of thirty (30) days after written notice thereof from Lessor to Lessee, shall constitute a default under and breach of this Lease by Lessee. Upon such default, Lessor, in addition to such other and all remedies it may lawfully have, shall have the right to terminate this Lease, effective on the date on which written notice of termination is given by Lessor to Lessee, and without any additional notice or demand to enter upon the Leased Premises and repossess same and expel Lessee and those claiming under Lessee and remove Lessee's personal property from the Leased Premises, all without being guilty of any trespass or liable for any loss or damage.

16. TRANSFER BY LANDLORD

(a) Lessee acknowledges that the Leased Premises, may be sold or otherwise transferred by Lessor during the term of this Lease. Lessor may sell, assign, convey or otherwise transfer all or any portion of its interests in this Lease and the Leased Premises. Any such sale or other transfer of the Leased Premises shall be subject to this Lease and all of the terms, conditions and obligations thereof; provided, however, that in the event of any such sale or transfer of the Leased Premises by Lessor, Lessor shall be relieved from and after the effective date thereof of all liability under any and all covenants and obligations contained in this Lease, and that such covenants and obligations shall be assumed by the buyer or transferee of the Lease premises.

(b) Within ten (10) days after written demand from Lessor, Lessee shall be obligated to execute and deliver to Lessor, without charge to Lessor, an estoppel certificate in writing certifying that this Lease, as same may have been modified or amended, is in full force and effect, certifying the date to which the rent is paid in advance, and certifying that, to Lessee's knowledge, there is not any uncured default on the part of the Lessor (or specifying such default if claimed). Such certificate may be conclusively relied upon by any purchaser of the Leased Premises. Lessee's failure or refusal to provide such a certificate shall constitute a default under and breach of this Lease.

17. QUIET POSSESSION

Subject to Lessee's faithful performance of the terms and conditions of this Lease, Lessee shall be entitled to peaceably and quietly have, hold and enjoy the Leased Premises in accordance with the terms and conditions of this Lease applicable to Lessee's use and occupancy.

18. ENTIRE AGREEMENT

This Lease constitutes the entire agreement of the parties and may not be amended or modified except in writing signed by both parties. All agreements and understandings between the parties are merged into this Lease, which alone fully expresses their agreement with respect to the subject matter hereof. Failure by either party to insist upon strict performance of any of the terms

or conditions herein shall not be construed as a waiver of any rights, and shall not be deemed a waiver of any subsequent breach or default in the terms and conditions herein contained.

19. SEVERABILITY

If any provisions of this Lease shall be declared by any court of competent jurisdiction to be invalid or unenforceable, such declaration shall not affect the validity of the remaining provisions which shall remain in full force and effect.

20. APPLICABLE LAW

This Lease shall be construed and interpreted in accordance with the laws of the State of New Hampshire.

21. BINDING EFFECT

Subject to the provisions of Sections 13 and 18, the terms and conditions of this Lease shall be binding upon and shall inure to the benefit of the successors and assigns of the parties hereto.

22. NOTICES

Any notice sent or required to be sent hereunder shall be deemed duly served if delivered or mailed by registered or certified mail, return receipt requested, postage prepaid, addressed as follows: to Lessor – Portsmouth Land Acquisition, LLC, 300 Gay Street, Manchester, NH 03103, Attention: Brian Thibeault; to Lessee – NextEra Energy Seabrook, LLC, c/o Seabrook Station, Lafayette Road, Seabrook, NH 03874, Attention: Purchasing & Contracts Manager. Either party may, by written notice to the other, change the address to which notices shall be delivered or sent. Any notice or other communication given or furnished, or any action taken by NextEra, making reference to this Agreement and given, furnished or taken in accordance herewith, shall be deemed to be notice given or communication furnished or action taken by and on behalf of the Lessee.

IN WITNESS WHEREOF, the Lessor and Lessee have caused this instrument to be executed by their duly authorized officers as of the day and year first above written.

Witness

Portsmouth Land Acquisition, LLC

By:

Witness

SEABROOK JOINT OWNERS
By: NextEra Energy Seabrook, LLC, Agent

By: _____
Name: Dean Curtland
Title: Vice-President NextEra
Energy Seabrook, LLC
Duly Authorized

LETTER OF AGREEMENT
BETWEEN
NEXTERA ENERGY SEABROOK, LLC
AND
SEABROOK NEW HAMPSHIRE FIRE DEPARTMENT

The purpose of this letter of agreement is to establish arrangements with the Seabrook Fire Department to provide firefighting support and emergency medical and ambulance services for Seabrook Station.

The Seabrook Fire Department agrees to provide firefighting assistance at Seabrook Station when requested. Seabrook Station will provide escort for Fire Department personnel when entering Seabrook Station property. The Seabrook Fire Department will have primary firefighting authority throughout the site with the exception of the area enclosed by the protected area security fence. Seabrook Station Security personnel will ensure that Seabrook Fire Department personnel and equipment will have access inside the Secure Owner Controlled Area (SOCA) fence that surrounds the protected area fence as necessary to provide firefighting and emergency medical services in that area.

Seabrook Station will retain primary firefighting responsibility for all buildings, structures, and equipment on or within the protected area. If Seabrook Fire Department assistance is required inside the protected area fence, Seabrook Station Security will ensure access by Seabrook Fire Department personnel and equipment as necessary to provide firefighting and emergency medical services in that area. The authority granted to the Seabrook Fire Department will be within the Joint Command concept and will be shared with the senior Seabrook Station fire protection officer, which in most cases would be the shift Fire Brigade Leader.

The Seabrook Station Control Room will contact the Seabrook Fire Department by telephone to request fire fighting and/or emergency medical support. On entry to the site, Seabrook Fire Department personnel will be provided a radio equipped with Seabrook Station operational frequencies. Seabrook Station fire protection personnel have the capability to communicate with responding fire department personnel via fire mutual aid radio frequencies.

The Seabrook Fire Department will provide emergency medical transportation for Seabrook Station personnel when requested. Seabrook Fire Department personnel will be offered training by Seabrook Station, on an annual basis, in the handling of radioactively contaminated and injured personnel.

Seabrook Fire Department personnel will be requested to participate in a scheduled medical drill annually. Ambulance search for the drill event will be required prior to entry into the Protected Area.

This letter of agreement shall be effective immediately upon execution by the persons representing the organizations cited in the agreement, and will be in effect until superseded by another letter of agreement or notification or withdrawal by both parties to the agreement.

Site Vice President NextEra Energy Seabrook	6/20/16 Date	Chief Seabrook Fire Department	6/27/16 Date

INPO®

Institute of Nuclear Power Operations

Suite 100
700 Galleria Parkway, SE
Atlanta, GA 30339-5943
770-644-8000
FAX 770-644-8549

October 30, 2012

Dear Ladies and Gentlemen:

This letter certifies that the plant emergency assistance agreement between INPO and its member utilities remains in effect. In the event of an emergency at your utility, INPO will assist you in acquiring the help of other organizations in the industry, as described in Section 1 of the Emergency Resources Manual, INPO 03-001, and in the United States Nuclear Industry Response Framework. If requested, INPO will provide the following assistance:

- coordinate technical information flow from the affected utility to the nuclear industry and government agencies
- coordinate the procurement and shipping of equipment and supplies
- locate personnel with technical expertise
- facilitate industry vendor and commercial supplier support
- obtain technical information and industry operating experience regarding plant components and systems
- provide an INPO liaison to facilitate interface

This agreement will remain in effect until terminated in writing. Should you have any questions, please call Steve Meng at (770) 644-8548 or e-mail at MengSW@inpo.org.

Sincerely,

Jeffrey T. Gasser
Vice President
Emergency Response

JTG:cjm

SUMMARY OF CHANGES

Rev. 61:

In Appendix D updated agreements for Portsmouth Land Acquisition (Remote Monitoring Area), Seabrook Fire Department, and Institute of Nuclear Power Operations.

Rev. 60:

In Appendix D added agreement for alternative EOF for beyond design basis events.

Rev. 59:

In Appendix D removed PSNH Newington Station and Newington Police Department. Added Portsmouth Police Department and Pease Development Authority. Changed Jask Realty to Portsmouth Land Acquisition. (AR#1721945)

Rev. 58:

Added new lease agreement for relocated remote monitoring area and updated letters of agreement for Exeter Hospital and Seabrook Fire Department.

Rev. 57:

Inserted most recent Institute of Nuclear Power Operations emergency assistance agreement.

Rev. 56:

Updated letter of agreement with the Commonwealth of Massachusetts and the State of New Hampshire. Updated lease agreements with Public Service New Hampshire for the Emergency Operations Facility at Newington Station and for the remote monitoring/decontamination facility at Schiller Station.

Rev. 55:

Updated the letter of agreement with the Seabrook Fire Department with agreement dated August 2007.

Rev. 54:

This appendix was unaffected by this revision to the manual.

APPENDIX G

SEABROOK STATION

SUPPORTING EMERGENCY PLANS AND PROCEDURES

LISTING

APPENDIX G
SUPPORTING PLANS AND PROCEDURES

I. FEDERAL PLAN

National Response Framework, Nuclear/Radiological Incident Annex (NRP)

II. STATE PLANS

New Hampshire Radiological Emergency Response Plan

Massachusetts Radiological Emergency Response Plan for Licensed Nuclear Power Plants - Appendix 2 to Hazard Specific Supplement No. 6

Maine Ingestion Pathway Plan for Seabrook Station

III. LOCAL PLANS

New Hampshire EPZ includes the following:

Seabrook
Portsmouth
Greenland
Rye
North Hampton
South Hampton
Hampton
Hampton Falls
Stratham
Exeter
Newfields
Brentwood
Kingston
East Kingston
Kensington
Newton
New Castle

Massachusetts EPZ includes the following:

Salisbury
Newburyport
Newbury
West Newbury
Amesbury
Merrimac

IV. Severe Accident Management Guidelines

V. Seabrook Station Emergency Preparedness Department Procedures (EPDP), Emergency Preparedness Drill and Exercise Manual (EPDE) and Emergency Preparedness Facility Inventory Manual (EPFI)

VI. SUPPORTING STATION SECURITY DEPARTMENT PROCEDURES

GN1332.00, Security Response to a Declared Radiological Emergency

GN1336.04, Security Related Emergency Preparedness Equipment and Systems Testing

VII. SUPPORTING STATION OPERATIONS DEPARTMENT PROCEDURES

OS1290.03, Response to a Land Based Security Event

OS1290.04, Response to an Airborne Security Threat

VIII. SUPPORTING STATION CHEMISTRY PROCEDURES

(The following procedures meet post-accident assessment program requirements of NUREG-0578, NUREG-0737, and Technical Requirement Program 5.6)

CS0932.17, Post Accident Sample System (PASS) Operational Surveillance
CS0925.01, Reactor Coolant Post Accident Sampling
CS0925.16, Post Accident Containment Recirculation Sump (RHR) Liquid Sampling
CS0925.10, Preparation for Post-Accident Sampling
CS0925.07, Post Accident Gas Sampling

IX. STATION EMERGENCY RESPONSE PROCEDURES

		SEABROOK STATION REP SECTION
CHAPTER 1:	CLASSIFICATION AND RESPONSE	
ER 1.1:	Classification of Emergencies	5.0
ER 1.2:	Emergency Plan Activation	5.0, 9.0, 11.2
ER 1.3:	Cancelled. Information from this procedure has been incorporated into Procedure ER 1.2.	
ER 1.4:	Cancelled. Information from this procedure has been incorporated into Procedure ER 1.2.	
ER 1.5:	Cancelled. Information from this procedure has been incorporated into Procedure ER 1.2.	
ER 1.7	Unusual Event Procedure for Primary Responders	
CHAPTER 2:	NOTIFICATION	

		SEABROOK STATION REP SECTION
ER 2.0:	Emergency Notification Documentation Forms Procedure	10.4
ER 2.1:	Cancelled. Information from this procedure has been incorporated into Security Procedure GN 1332.00	
ER 2.2:	Cancelled.	
ER 2.3:	Cancelled. Information from this procedure has been incorporated into Procedures ER 1.4 and ER 1.5.	
CHAPTER 3:	EMERGENCY FACILITY ACTIVATION	
ER 3.1:	Technical Support Center (TSC) Operations	6.1.1, 7.0, 10.3, 10.4.2
ER 3.2:	Operational Support Center (OSC) Operations	6.1.2
ER 3.3:	Emergency Operations Facility (EOF) Operations	7.0, 6.1.3, 6.2.3.1, 9.4, 10.3, 10.4.2
ER 3.4:	Seabrook Station News Services Operation	6.1.6, 8.4, 11.1, 11.2, 11.3
ER 3.5:	Joint Information Center Operations	6.1.6, 8.4, 11.1, 11.2, 11.3
ER 3.6:	Assembly Area Operations	N/A
CHAPTER 4:	PERSONNEL PROTECTION	
ER 4.1:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.1 and Security Procedure GN 1332.00	
ER 4.2:	Reserved	
ER 4.3:	Radiation Protection During Emergency Conditions	10.4.5
ER 4.4:	Cancelled. Information from this procedure has been incorporated into Operations Department Instruction (ODI) 32	
ER 4.5:	Reserved	
ER 4.6:	Offsite Monitoring and Decontamination	10.1.2, 10.4.2, 10.4.3
ER 4.7:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.3.	
ER 4.8:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.2.	

		SEABROOK STATION REP SECTION
CHAPTER 5:	RADIOLOGICAL ASSESSMENT	
ER 5.1:	Cancelled.	
ER 5.2:	Site Perimeter and Offsite Monitoring and Environmental Sampling	10.1.2
ER 5.3:	Operation of the Raddose-V	10.1.1
ER 5.4:	Protective Action Recommendations	10.2
ER 5.5:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.3.	
ER 5.6:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.3.	
ER 5.7:	Cancelled. Information from this procedure has been incorporated into Procedure ER 5.3.	
ER 5.8:	Cancelled. Information from this procedure has been incorporated into Procedure ER 3.3.	
CHAPTER 6:	RECOVERY	
ER 6.0	Recovery Planning	9.3
CHAPTER 7:	CANCELLED	
ER 7.1:	Cancelled.	
ER 7.2:	Cancelled. Information from this procedure has been incorporated into Procedures ER 3.1 and ER 3.3.	
ER 7.3:	Cancelled. Information from this procedure has been incorporated into Procedures ER 3.1 and ER 3.3.	
ER 7.4:	Cancelled. Information from this procedure has been incorporated into Procedure ER 2.0.	
CHAPTER 8:	CANCELLED	
ER 8.1	Cancelled. This procedure has been incorporated into the Site Services Facilities Department Inventory Manual.	12.4
ER 8.2:	Cancelled. This procedure has been incorporated into the Training Department ERO Program Description and Nuclear Training procedures.	12.2

		SEABROOK STATION REP SECTION
ER 8.3:	Cancelled. This procedure has been incorporated into the Radiological Emergency Preparedness Drill and Exercise Manual.	12.1
ER 8.4:	Cancelled. This procedure has been incorporated into the Station Management Manual (SSMM)	12.3
ER 8.5:	Cancelled. This procedure has been incorporated into the Site Services Facilities Department Inventory Manual	12.1.2.1
ER 8.6:	Cancelled. Information from this procedure has been incorporated into Procedure ER 8.4.	
ER 8.7:	Cancelled. This procedure has been incorporated into a Support Services department level procedure.	9.2.2
CHAPTER 9:	CANCELLED	
ER 9.1:	Cancelled. This procedure has been incorporated into Procedures ER 3.4 and ER 3.5.	

SUMMARY OF CHANGES

Rev. 55: (PCR 02183129 February 2017)

Cancelled ER 5.7 as there is now only one standard procedure for all Raddose V users (ER 5.3).

Rev. 54:

In Appendix G updated title to ER 3.5N and added ER 1.7 to list (AR#1721945)