

MAINE YANKEE
321 Old Ferry Road, Wiscasset, Maine 04578

December 15, 2015
OMY-15-055
Re: 10 CFR 50.54(q)(5)
10 CFR 72.44(f)
10 CFR 50.4(b)(5)
10 CFR 72.4

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Maine Yankee Atomic Power Company
Maine Yankee Independent Spent Fuel Storage Installation
NRC License No. DPR-36 (NRC Docket No. 50-309)

Subject: Revision 7 to Maine Yankee ISFSI Emergency Plan

In accordance with 10 CFR 50.54(q)(5), 10 CFR 72.44(f), 10 CFR 50.4(b)(5), and 10 CFR 72.4, Maine Yankee Atomic Power Company (Maine Yankee) is providing Revision 7 of the Maine Yankee Independent Spent Fuel Storage Installation (ISFSI) Emergency Plan, and a summary of the analysis that determined that the changes do not constitute a reduction in commitment, nor a decrease in effectiveness of the Maine Yankee ISFSI Emergency Plan.

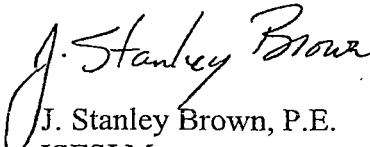
Attachment 1 provides a summary of the evaluation that provides the basis for concluding the Maine Yankee ISFSI Emergency Plan, as changed, continues to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to Part 50 as modified by the existing exemptions for the Maine Yankee ISFSI.

Enclosure 1 provides a copy of Revision 7 of the Maine Yankee ISFSI Emergency Plan. It was effective on December 15, 2015.

This letter contains no commitments.

If you have any questions regarding this submittal, please do not hesitate to contact me at (207) 882-1303.

Respectfully,


J. Stanley Brown, P.E.
ISFSI Manager

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AMSS20

Attachments and Enclosures

Attachment 1 – Summary of 10 CFR 50.54(q) Evaluation for Changes to the Maine Yankee ISFSI
Emergency Plan

Enclosure 1 – Maine Yankee ISFSI Emergency Plan, Revision 7

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Attachment 1 to OMY-15-055
Summary of 10 CFR 50.54(q) Evaluation for Changes to the
Maine Yankee ISFSI Emergency Plan

Section /Table	Description of Proposed Change	Justification of Proposed Change
Through-out the Emergency Plan	Changed title Emergency Coordinator to Emergency Director or EC to ED.	This is a change to standardize to the same title at all three Yankee sites.
Through-out the Emergency Plan.	The Emergency Plan has been reformatted and renumbered as needed to support this change.	These changes are editorial and clerical in nature and have no impact on the intent of the Emergency Plan.
Table 4-1	Deleted a reviewer's note that was incorporated into revision 6 inappropriately.	This is an administrative change.
Section 5.3.3	This section has been revised to clarify that if personnel become contaminated they will be monitored by Radiation Protection Personnel. It also eliminates the requirement to perform this activity at a specific point.	This is a change to permit the Radiation Protection personnel to determine where the monitoring and decontamination will be performed.
Section 5.3.5	This section has been revised to add that Protective Clothing (PCs) will be provided by the Radiation Protection contractor.	This is a clarification of duties and responsibilities making the Radiation Protection contractor responsible to supply PCs.
Section 8.1.2	Changed title from General Employee Training (GET) to ISFSI Access Training.	This is a clarification to identify the current title of the site training program.
Chapter 11, References	Added reference to NRC RIS 2015-14 "Issuance of Enforcement Guidance Memorandum – Emergency Plan and Emergency Plan Implementing Procedure Updates", issued 10/30/15.	This is an administrative change that adds a new guidance document.
Appendix II	Updated FP-1 title and updated Physical Security Plan full title.	This is a clarification and administrative change.

Attachment 1 to OMY-15-055
Summary of 10 CFR 50.54(q) Evaluation for Changes to the
Maine Yankee ISFSI Emergency Plan

Section /Table	Description of Proposed Change	Justification of Proposed Change
Appendix III , Emergency Plan Implementing Procedures	<p>Deleted EO-6, Non-Emergency Event Assessment as an Emergency Plan Implementing Procedure.</p> <p>Deleted EO-3 and EO-4 as Emergency Plan Implementing Procedures because their content was relocated into EO-2.</p> <p>EO-2 was renamed. The original content of EO-2 was moved to OP-1, because it was not required to implement the Emergency Plan.</p>	<p>EO-6 never implemented the Emergency Plan. A self-assessment established that the actions in EO-6 did not meet the intent or definition of an implementing procedure.</p> <p>The self-assessment identified the following procedures as Emergency Plan Implementing Procedures in accordance with Appendix E to Part 50:</p> <p>EO-1 – Emergency Plan Implementation</p> <p>EO-2 – Response to Accident and Natural Phenomena Events</p> <p>EO-5 – Emergency Plan Administration</p> <p>These procedures contain the following as required by Appendix E of Part 50:</p> <ul style="list-style-type: none"> • Organization (Emergency) • Assessment Actions • Activation of the Emergency Organization • Notification Procedures • Emergency Facilities and Equipment • Training • Maintaining Emergency Preparedness • Recovery <p>The current EO-2 off normal actions have been incorporated into OP-1 because it did not implement the Emergency Plan. EO-2 has been revised to incorporate EO-3 and EO-4 into the new EO-2, titled “Response to Accident and Natural Phenomena Events”. EO-3 and EO-4 have been cancelled.</p>

ENCLOSURE 1 TO OMY-15-055

MAINE YANKEE ISFSI EMERGENCY PLAN, REVISION 7

**MAINE YANKEE
INDEPENDENT SPENT FUEL
STORAGE INSTALLATION
(ISFSI)
EMERGENCY PLAN**

REVISION 7

Effective Date: December 15, 2015

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DEFINITIONS

ASSEMBLY AREAS - Designated locations where personnel may be directed to congregate in the event of the need to evacuate all or portions of the facility.

ASSESSMENT ACTIONS - Actions taken during or after an emergency event or accident to obtain and process information necessary to implement specific emergency measures.

CONFINEMENT BOUNDARY - The confinement boundary of the canister consists of the canister shell, bottom plate, shield lid, structural lid, the two port covers, and the welds that join these components.

CONTROL CENTER (CC) - During an emergency the lunch/conference room or other designated area in the security/operations building functions as the emergency Control Center (CC) operating under the direction of the Emergency Coordinator. It is the primary point at which ISFSI conditions are tracked and corrective actions are taken to mitigate any abnormal conditions.

CONTROLLED AREA - The designated area outside of the Protected Area (PA), extending at least 300 meters from the spent fuel storage pads, over which control is exercised during emergency events pursuant to 10 CFR 72.106(b).

CORRECTIVE ACTIONS - Measures to reduce the severity of (or terminate) an emergency situation.

EMERGENCY ACTION LEVEL (EAL) - Conditions that, if met or exceeded, warrant classification and declaration of an emergency.

EMERGENCY DIRECTOR (ED) - The ED is responsible for the overall coordination and direction of the company response to an emergency condition at the ISFSI.

EMERGENCY SUPPORT STAFF - A group of trained staff designated to respond to a declared emergency, if necessary.

GREATER THAN CLASS C WASTE (GTCC) - Radioactive waste material that is not generally acceptable for near surface disposal is waste for which form and disposal methods must be different, and in general more stringent, than those specified for Class C waste. The Maine Yankee Core Shroud Assembly and Core Support Plate are considered GTCC waste and will be stored at the ISFSI.

INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) - A spent fuel storage facility owned and operated by Maine Yankee, comprised of a Protected Area (PA) containing sixteen storage pads having 64 cask locations for dry storage of spent fuel and GTCC waste, a security/operations building and an earthen berm partially surrounding the site.

INITIATING CONDITION (IC) - ISFSI parameters, equipment status and/or personal observations that comprise the individual EALs.

LOCAL ORGANIZATIONS - Those organizations that provide specific services under emergency conditions (i.e. police, ambulance and fire department).

DEFINITIONS

(Continued)

UNUSUAL EVENT (UE) - Events are in progress or have occurred which indicate a potential degradation of the level of safety of the facility. No release of radioactive material requiring offsite response or monitoring is expected.

PROTECTED AREA (PA) - The area, encompassed by physical barriers, within the secured, controlled access boundary of the ISFSI.

ISFSI SHIFT SUPERVISOR (ISS) - The senior ISFSI representative on-shift. The ISS assumes the position of ISS/ED upon classification and declaration of an unusual event.

1.0 INTRODUCTION

This document describes the Maine Yankee Atomic Power Company's (MYAPC) plan for responding to emergencies that may arise at the Maine Yankee Independent Spent Fuel Storage Installation (ISFSI). The overall purpose of the plan is to delineate the actions necessary to safeguard ISFSI personnel and minimize damage to site property in the event of an incident at the ISFSI. Analyses of the possible design basis events and consequences are presented in the Safety Analysis Report for the UMS[®] Universal Storage System (NAC UMS SAR) used at the ISFSI for dry spent fuel storage.

The analyses of the potential radiological impact of an accident at the Maine Yankee site indicates that any releases beyond the ISFSI Controlled Area boundary are expected to be less than the U.S. Environmental Protection Agency (EPA) protective action guide (PAG) exposure levels, as detailed in EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. Exposure levels which may warrant pre-planned response measures are generally limited to the Controlled Area. For this reason, radiological emergency planning is focused on the Controlled Area.

2.0 FACILITY DESCRIPTION

2.1 Maine Yankee Site

2.1.1 Overview

The Maine Yankee site is located in the town of Wiscasset, Lincoln County, Maine. Site coordinates are approximately 43 degrees 57 minutes 5 seconds north latitude and 69 degrees 41 minutes 45 seconds west longitude. The site is bounded by the Back River on the east, mainland on the north and Bailey Cove on the west. The ISFSI is located on a peninsula known as Bailey Point, which extends south to Montsweag Bay (Figure 2-1).

The ISFSI facility is depicted on Figure 2-2. Spent nuclear fuel is in interim storage within the specified secure fuel storage area and will be monitored by the ISFSI staff.

2.2 General Area

Within 5 miles of the site, land use is largely rural residential, small businesses, summer houses, idle farmland and forest. Housing is scattered along principal roads and is concentrated only in the center of Wiscasset.

The waters of the Back River, Montsweag Bay and associated tributaries are tidal and open to boating, both commercial and recreational. Regulation of boating is the responsibility of the U.S. Coast Guard and the State of Maine. The primary type of boating in the Montsweag Bay - Back River is shallow draft pleasure boats. With no commercial traffic in the area, there is essentially no hazard to the site from potential accidents with commercial barges or boats carrying hazardous, toxic or explosive materials.

Industrial activity within the general area of the ISFSI is minimal. The largest industrial facility is the Bath Iron Works, a shipbuilding facility located on the Kennebec River approximately 7 miles southwest in the city of Bath.

The Wiscasset Municipal Airport is the nearest airport to the site and is located approximately one mile northwest of the site. It consists of one runway (approximately 3,400 feet long by 75 feet wide). This runway is aligned such that takeoffs and landings are on headings of either 070 or 250 (the predominant heading is 250). The majorities of aircraft that are serviced by this facility are privately owned and are similar to the Piper Colt, Cherokee, and Cessna 150 and 172 type craft. The largest aircraft that typically use the facility are similar to the Lear 25, Citation II and Rockwell Commander type craft.

2.3 Independent Spent Fuel Storage Installation (ISFSI)

The ISFSI is designed for interim storage of fuel for a minimum of 50 years in a contained shielded system. The ISFSI utilizes the Universal MPC System (UMS™) developed by NAC International. The UMS™ is a canister-based multi-purpose canister (MPC) system designed for both storage and transportation of spent nuclear fuel. The canister-based spent fuel storage system is a passive system which utilizes an outer concrete cylinder called a Vertical Concrete Cask (VCC) to protect and shield the inner sealed metal canister. The VCC is vented for natural convection cooling and has no moving parts. Decay heat from the loaded fuel storage canister in the VCC is dissipated to the surrounding air by a once through buoyancy driven airflow. The VCC provides radiation shielding, as well as protection from tornado missiles and earthquakes.

The ISFSI site consists of a Protected Area (PA) for fuel storage and a Security/Operations Building. The ISFSI has a Controlled Area that extends at least 300 meters from the nuclear fuel storage area.

The PA has sixteen concrete storage pads, and is surrounded by a security fence and a nuisance fence with an isolation zone between the two fences. A partial earthen berm is provided around the facility to reduce the visual impact of the facility. The ISFSI contains a total of 64 storage casks, with one sealed fuel canister per VCC. The types of canisters stored in the storage casks include 60 casks for spent fuel and 4 casks for Greater Than Class C (GTCC) waste. Sixteen storage pads of equal size are provided for uniformity, which allows for storage of 4 casks per storage pad. The ISFSI site is arranged to provide maneuvering room around the storage pads for access with a cask heavy haul tractor-trailer.

The Security/Operations Building provides offices and work space for the operating and maintenance personnel, including the Radiation Controls Checkpoint lunch/conference rooms, restrooms, locker rooms, document control room, spare parts storage, and a diesel generator for emergency power. The Security/Operations Building also houses the ISFSI security staff, security equipment, and communications equipment. Access to the ISFSI protected area is controlled and monitored by the security staff.

The ISFSI operates under the provisions of a general license utilizing the UMS™ spent fuel storage/transportation system. The UMS™ system is licensed under a Certificate of Compliance issued by the U.S. Nuclear Regulatory Commission (NRC) in accordance with 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste".

FIGURE 2-1
MAINE YANKEE SITE
GENERAL AREA

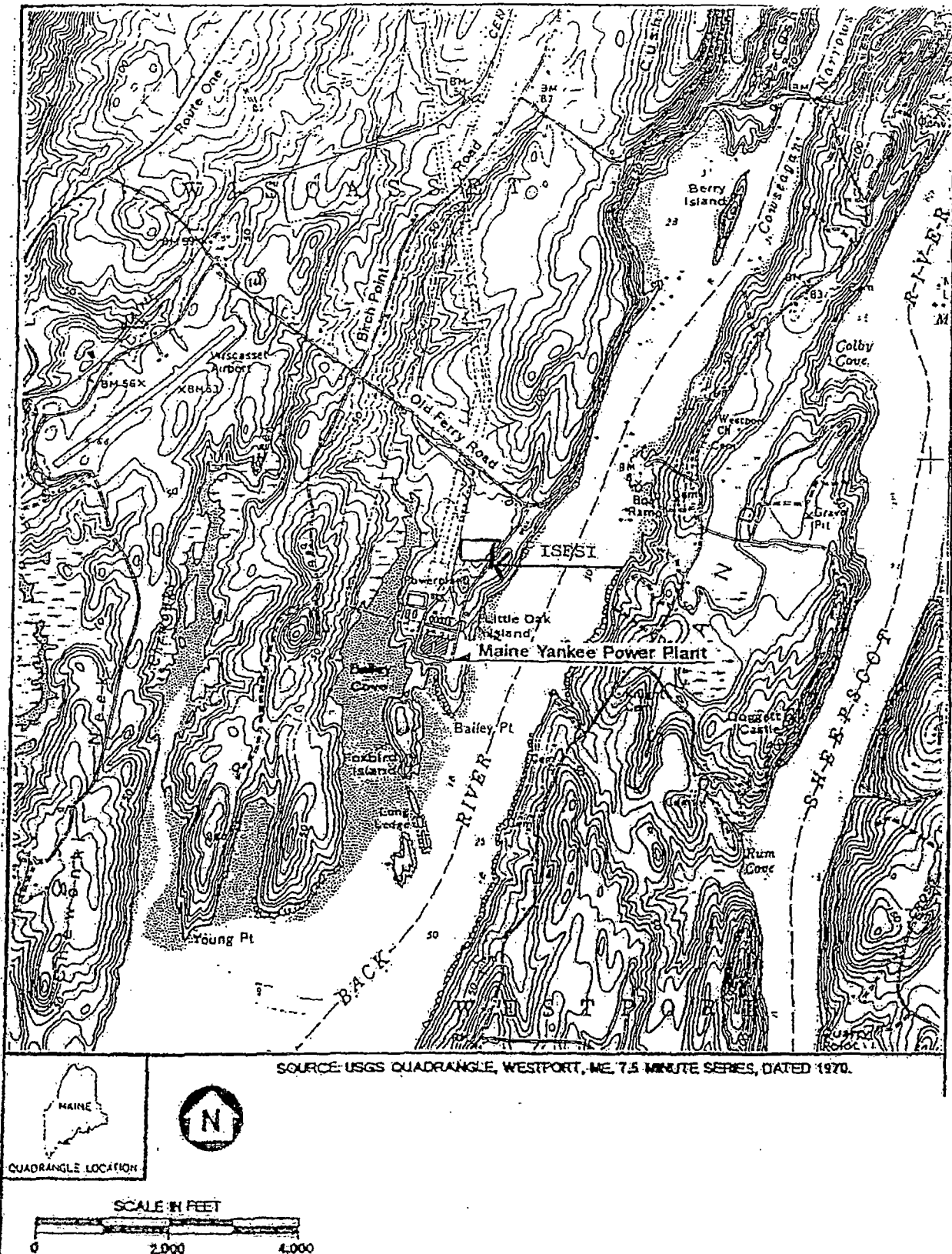
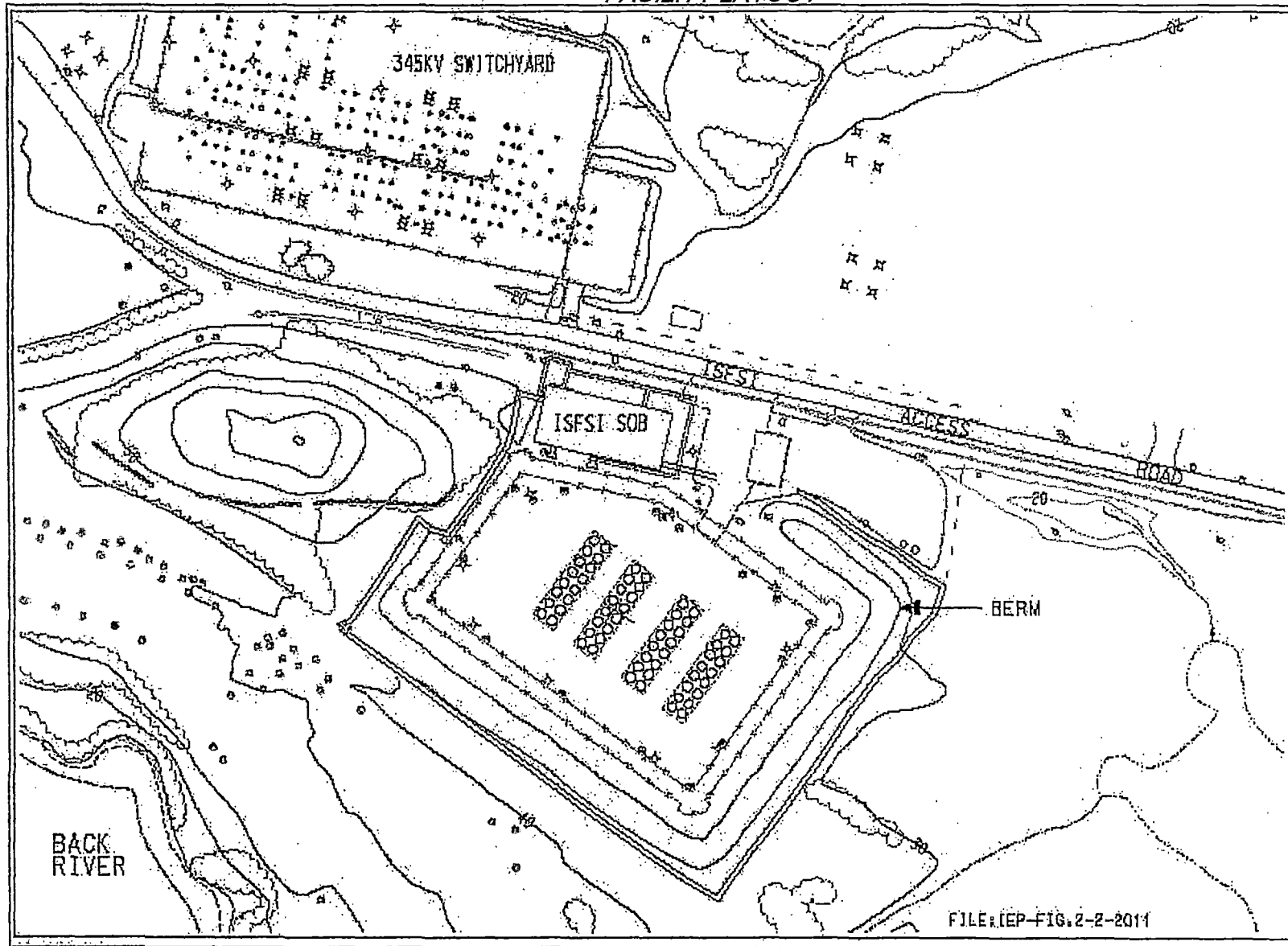


FIGURE 2-2
MAINE YANKEE SITE
FACILITY LAYOUT



IEP-FIG.2-2-2011.dgn

3.0 ISFSI ACCIDENT TYPES, DETECTION AND CONSEQUENCES

3.1 Radiological Events

There are no postulated credible ISFSI accident conditions that would impose a radiological hazard to personnel beyond the ISFSI Controlled Area boundary. There are no credible design basis accidents that would exceed the EPA PAGs at the ISFSI Controlled Area boundary. In the event of an ISFSI accident condition, the associated radiological hazards are limited to personnel onsite at the time of the event.

The postulated ISFSI accident conditions are described in Chapter 11 of the Safety Analysis Report for the UMS Universal Storage System developed by NAC International (Reference 4).

3.2 Non-Radiological Events

The spectrum of ISFSI non-radiological events that could necessitate implementation of this Emergency Plan is limited. These events fall into the category of general industrial incidents (e.g. fire, explosion, toxic material release, etc.), natural and destructive phenomena (hurricane, tornado, etc.) or security events. These events are further described in Chapter 11 of the Safety Analysis Report for the UMS® Universal Storage System. The determination of which events are included is based on the probability of occurrence, the potential severity and the potential impact on the facility of the event.

3.2.1 Tip-Over of Vertical Concrete Cask

A hypothetical non-credible accident condition has been postulated involving the non-mechanistic tip-over of a vertical concrete storage cask. Functionally, the cask is not expected to suffer significant adverse consequences due to this event. The concrete cask and canister are expected to continue providing design basis shielding, geometry control of contents, and contents confinement performance. The tipped-over configuration of the concrete cask will be obvious during a site inspection following the initiating event. There is an adverse localized radiological consequence due to the hypothetical tip-over event since the bottom end of the concrete cask has significantly less shielding than the sides and top of these same components. The estimated dose rate from the bottom of a tipped-over cask is calculated to be approximately 34 rem/hr at 1 meter, 4 rem/hr at 4 meters, and < 10mrem/hr at 100 meters (NAC-SAR). Following a tip-over event, supplemental shielding should be used until the concrete cask can be up-righted. Surface and top and bottom edges of the concrete cask are expected to exhibit cracking and possible loss of concrete down to the layer of reinforcing bar. The increased dose rate due to this cracking is not expected to be significant. There are no credible events expected to result in a cask tip-over.

3.2.2 Tornado and Tornado Driven Missiles

It is not expected that the performance of the UMS storage cask will be significantly affected by a tornado event. It is not anticipated that postulated tornado wind loading and missile impacts are capable of overturning a cask, or penetrating the cask concrete boundary and affecting the fuel storage canister. A tornado event can be visually observed. Advanced warning of a tornado and of tornado sightings may be received from the National Weather Service, local radio and television stations, local law enforcement personnel, and site personnel. An inspection of the cask exterior surface following a tornado event is required. The inspection should be directed at ensuring the inlets and outlets have not become blocked by wind-blown debris and checking for obvious concrete surface damage. Damage to the vertical concrete cask after a design basis tornado is not anticipated to result in radiation exposure at the Controlled Area boundary that would exceed the EPA PAGs exposure guidelines. The penetrating missile impact is estimated to reduce the concrete shielding thickness, locally at the point of impact, by approximately 6 inches. Localized cask surface dose rates for the removal of 6 inches of concrete are estimated to be less than 250 mrem/hr (NAC SAR Section 11.2.11).

3.2.3 Explosions

An explosion affecting the Universal Storage System may be caused by industrial accidents or the presence of explosive substances in the vicinity of the ISFSI. It is not anticipated that explosive substances will be stored or used at the ISFSI. An explosion in the vicinity of the ISFSI would be sensed by on-duty ISFSI personnel. In the event of a nearby explosion, an inspection of the concrete casks may be required to check cask integrity, to ensure that the air inlets and outlets are free of debris, and to ensure that the monitoring system and screens are intact. There are no anticipated off-site radiological consequences for this event.

3.2.4 Seismic Event

The earthquake evaluation shows that the loaded or empty vertical concrete casks are not expected to tip over or slide in the event of an earthquake. Significant earthquakes would be detected by ground motion. Inspection of the vertical concrete casks is required following an earthquake event. The proper positioning of the concrete casks should be verified to ensure they maintain the established spacing requirements. The temperature monitoring system should be checked for operation. There are no anticipated off-site radiological consequences for earthquake events.

3.2.5 Fires

There are no flammable materials routinely present in the ISFSI cask storage area. A "combustible liquid control zone" shall be established for the ISFSI itself, which shall be a minimum of 10 feet from the outside perimeter of the VCC. The total liquid combustibles allowed within the zone cannot exceed 50 gallons and must be in direct support of ISFSI operations or maintenance. A fire in the vicinity of the ISFSI will be detected by observation of the fire or smoke. Upon detection of a fire, appropriate actions should be taken by site personnel to report and/or extinguish the fire. The concrete cask should be inspected for general deterioration of the concrete, loss of shielding (spalling of concrete), exposed reinforcing bar, and surface discoloration that could affect heat rejection. This inspection serves as the basis for the determination of any repair activities necessary to return the concrete cask to its design basis configuration. There may be local spalling of concrete during the fire event, which could lead to some minor reduction in shielding effectiveness. The principal effect would be local increases in radiation dose rates on the cask surface. There are no off-site radiological consequences anticipated for this event.

3.2.6 Abnormal Cask Outlet Temperature Shift

This event involves an abnormal outlet temperature shift caused by a partial or full blockage of the vertical concrete cask air inlets and outlets that could result in the heat up of the fuel cladding, the fuel basket and the concrete, with the temperature potentially reaching the design basis limiting temperature. Full blockage could result in these temperature limits potentially being exceeded after 24 hours. Blockage of the cask air inlets and outlets will be detected by the Cask outlet temperature monitoring system. Any obstruction blocking the air inlets and outlets must be manually removed. There are no significant radiological consequences for this event at the Controlled Area boundary, as the vertical concrete cask is expected to retain its shielding performance (NAC SAR 11.2.13).

3.2.7 Other Conditions

3.2.7.1 Off-Normal Canister Handling Events

These events would involve off-normal occurrences during the handling or transfer of a loaded transportable storage canister (TSC), i.e., during the installation or removal of the canister in or from the vertical concrete cask (VCC), or the transfer cask (TFR). Unintended loads could be applied to the canister due to misalignment or faulty crane operation, or due to inattention of the operator. The event is expected to be obvious to the operators at the time of occurrence. There is no anticipated deterioration of the canister or fuel basket performance due to this event. There are no anticipated off-site radiological consequences associated with this off-normal event.

3.2.7.2 Drop of Vertical Concrete Cask

This event involves dropping a loaded vertical concrete cask during routine handling operations. This event may be due to the failure of one or more of the cask lifting jacks or of the air pad system. The maximum lift height shall be limited to less than 24 inches by administrative controls. The event would be detected by the operators as it occurs. The damaged cask should be inspected and repaired prior to continued use. There are no anticipated off-site radiological consequences for this event.

3.2.7.3 Flood Event

The UMS storage system vertical concrete casks have been evaluated for a design basis flood condition having a 50-foot depth of water and a water velocity of 15 feet per second. This flood depth would fully submerge the vertical concrete casks. The analysis shows that the vertical concrete casks are not expected to slide or overturn during the design basis flood. Small floods may lead to blockage of the concrete cask air inlet vents. Partial and full blockage of air inlets is described in Section 3.2.6 of this plan. Flooding conditions would be detected by the ISFSI staff or personnel working in the vicinity of the ISFSI. A potential exists for collection of debris or accumulation of silt at the base of the cask, which could clog or obstruct the air inlet vents. Operation of the temperature monitoring system should be verified, as flood conditions may have impaired its operation. There are no anticipated off-site radiological consequences associated with the design basis flood event.

3.2.7.4 Lightning Strike Event

Since the vertical concrete casks are located on an unsheltered pad, the casks may be subject to a lightning strike. A lightning strike on a concrete cask may be visually detected at the time of the strike, or by visible surface discoloration at the point of entry or exit of the current flow. There are no anticipated off-site radiological consequences due to the lightning event.

3.3 Security Event

Events that impact the security of the ISFSI are discussed in the ISFSI Security Plan. These events represent a threat to the level of safety of the ISFSI due to unauthorized access, the introduction of threatening materials, or the use of hostile force in designated security areas. Security event detection and response is described in the Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan. The Emergency Plan may be implemented if necessary in response to a security event.

Events that fall into these areas will be categorized under the appropriate category in the classification process discussed in Section 4, CLASSIFICATION OF ACCIDENTS.

4.0 CLASSIFICATION OF ACCIDENTS

Based on NUREG-1140, "Regulatory Analysis of Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees", the NRC has determined that there are no credible design basis accidents that would exceed the EPA PAGs at an ISFSI Controlled Area boundary. Emergency classification guidance in Appendix E of Nuclear Energy Institute document NEI 99-01 (Final Rev. 4), "Methodology for Development of Emergency Action Levels," states, "The expectations of offsite response to an 'alert' classified under a 10 CFR 72.32 emergency plan are generally consistent with those for a notification of unusual event in a 10 CFR 50.47 emergency plan, i.e., to provide assistance if requested." The NEI 99-01 guidance is utilized in this plan to classify Maine Yankee ISFSI emergency events. The NRC Regulatory Analysis for Rev. 4 of Reg Guide 1.101 (Reference 5) to accept NEI 99-01 determined that the guidance in NEI 99-01 is appropriate for developing site specific EALs, to meet the intent of 10 CFR 50.47(b)(4) and Appendix E to Part 50.

Accidents and off-normal events that are analyzed for the ISFSI, including some events considered to be non-credible, have been reviewed and assigned a classification. There are no credible design basis accidents that would exceed the EPA PAGs at the ISFSI Controlled Area boundary. Table 4-1 summarizes events that are classified as an Unusual Event.

This plan classifies events based on predetermined Emergency Action Levels (EALs). This approach provides a simple, predetermined response to an emergency event or accident, allowing a coordinated and phased approach to the eventual mitigation of the conditions and restoring the facility to a safe status.

4.1 Definitions

4.1.1 Unusual Event (UE)

Events are in process or have occurred which indicate a potential degradation of the level of safety of the facility. No release of radioactive material requiring offsite response or monitoring is expected.

4.2 Categories of Events

Per the Emergency Action Levels (EALs) guidance in NEI 99-01 (Reference 2), there are two categories of ISFSI events that can lead to an accident being classified as an Unusual Event (UE). The ISS/ED has the discretion to classify events based on the classification level definition. This discretion should be used when conditions or events are observed and no specific Initiating Condition (IC) / Emergency Action Level (EAL) is apparent. The UE classification will heighten awareness of the abnormal condition. Table 4-1 lists the initiating conditions, associated emergency action levels, and the applicable NRC emergency classification levels.

4.2.1 Damage to a Loaded Vertical Concrete Cask That May Damage the Fuel or GTCC Confinement Boundary UE

A UE classification for these IC/EALs is warranted on the basis of the occurrence of an event of sufficient magnitude that a loaded VCC is severely damaged, which may be indicative of potential damage to a cask confinement boundary. This classification includes events involving loss of a loaded fuel storage cask confinement boundary, leading to degradation of the fuel during storage or posing an operational safety problem with respect to removal of the degraded fuel confinement boundary from storage. Natural phenomena events and accident conditions in which a loaded VCC is damaged are classified at the UE level. Cask seal integrity issues discovered during leakage testing associated with normal canister processing would be addressed in accordance with NAC technical specifications, or SAR required actions, therefore, classification should not be made based on loss of seal integrity by itself. However, loss or potential loss of seal integrity coincident with an accident condition or natural phenomena that clearly affects the cask would justify a UE classification. The ISFSI vertical concrete storage casks are routinely monitored by site personnel such that any degradation would be detected. Increases in radiation levels may be indicative of degradation of a storage cask.

4.2.2 Confirmed Security Event with Potential Loss of Level of Safety of the ISFSI UE

These IC/EALs provide a UE classification for security events involving a potential loss of the level of safety of the ISFSI based on the Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan.

TABLE 4-1 EMERGENCY ACTION LEVELS

Initiating Conditions	Emergency Action Levels	NRC Emergency Classification Level
HU1 – DAMAGE TO A LOADED VERTICAL CONCRETE CASK (VCC) THAT MAY DAMAGE THE FUEL OR GTCC CONFINEMENT BOUNDARY	<ol style="list-style-type: none"> 1. Natural Phenomena events affecting a loaded GTCC or spent fuel cask confinement boundary. 2. Accident conditions affecting a loaded GTCC or spent fuel cask confinement boundary. 3. ISS/ED judgment. 	UNUSUAL EVENT
HU2 – CONFIRMED SECURITY EVENT WITH POTENTIAL LOSS OF LEVEL OF SAFETY OF THE ISFSI	<ol style="list-style-type: none"> 1. Ongoing security compromise or attempted entry which may result in the potential loss of control of the facility. 	UNUSUAL EVENT

5.0 EMERGENCY RESPONSE

Emergency Response Overview

In the event of an accident at the facility, actions will be taken by facility staff to report the event to the ISFSI Shift Supervisor (ISS) and to minimize the impact of the event. The primary objective of the initial responders is to assess the situation and minimize the risk imposed on workers and the general public. This involves initiation of required actions to mitigate a particular hazard. Subsequent actions include notifications, staff accountability, staff augmentation, and implementation of onsite corrective actions as necessary. The ISFSI Shift Supervisor becomes the Emergency Director (ISS/ED) upon classification and declaration of an unusual event.

5.1 Notification and Activation

When an emergency condition is recognized, the event is classified and declared by the ISS/ED and mitigating actions are taken to minimize the progression of the event. These actions are initiated by available resources. The ISS/ED will request any offsite assistance that may be necessary due to the nature of the event. Following initial notifications, the Maine State Police (MSP) and the Nuclear Regulatory Commission (NRC) will be notified of the event and mitigating actions in progress or that have been completed. Figure 5-1 depicts the initial notification and activation process.

5.1.1 Maine Yankee Emergency Support Staff

The ISS/ED or designee will direct ISFSI shift personnel to notify the ISFSI Support Staff of an event, if necessary. This will be accomplished by the commercial telephone system (i.e., land based, cell based, satellite based service). In the event the initiating conditions constitute a Security Event, these notifications will be made by the ISS/ED or designee. Notifications to supplement support positions should be completed within one hour of the event declaration.

5.1.2 Offsite Organizations

Following notification of the Maine Yankee ISFSI Support Staff, the Maine State Police (MSP) will be contacted and provided pertinent information regarding the event, actions taken to mitigate the event and notification of any assistance which may be necessary from local organizations (i.e. fire, ambulance, police response). Notification to the MSP shall be completed within one hour of event declaration. Depending on the need for immediate outside assistance, these notifications may be initiated in an accelerated manner (i.e. immediate need for fire fighting capabilities or medical assistance). The MSP Headquarters Communications Center is staffed 24 hours a day, 7 days a week. The MSP have the capability to contact State and county emergency response personnel, if needed.

The MSP will initiate notification to appropriate State Officials in the Maine Emergency Management Agency (MEMA), Division of Environmental Health (DEH) and others as designated in the State's notification protocol, based on the event.

The NRC will be notified after the notification of the MSP and no later than one hour after the emergency was declared.

5.1.3 Information to be Communicated

A pre-scripted format is used to ensure consistent information is provided to the MSP and the NRC.

At a minimum, the following information will be provided during the initial notification of the event:

- Event Classification;
- Date/Time of Classification;
- Reason or events causing the condition;
- General description of damage to major structures/areas;
- Personal injuries;
- Status of offsite assistance (fire/medical/other);
- Name of person making notification;
- Date and Time of notification.

The information will be verified, via repeat-back, to ensure it was accurately communicated.

5.2 Radiological Assessment

Initial response to an event will be to ascertain the cause, mitigate further progression and determine the potential impact to ISFSI personnel and the general public. Initial assessment will normally consist of an area dose assessment if warranted. Initial dose assessment activities will be directed by the ISS/ED and performed by qualified personnel.

As soon as practical, facility staff should initiate general area radiation surveys to determine the actual extent of any radiological concern. Results of the surveys will be analyzed by facility staff to formulate an action plan to mitigate the event and restore the facility to a safe condition. Survey data will also be used, as appropriate, in any on-site dose assessment techniques.

Following the termination of the event, environmental surveys (including, but not limited to water, soil, vegetation, etc.) may be required to determine the long-term impact of the event.

5.3 Protective Actions

5.3.1 Relocation and Accountability

In an UNUSUAL EVENT declaration, personnel not directly involved with the response may be directed to relocate to an assembly area. Staff will be notified using the on-site paging system or other means. An assembly area may be established, based on the nature of the event, at a location determined by the ISS/ED. The ISFSI shift staff will maintain accountability of personnel and report any missing persons to the ISS/ED. Search and rescue efforts may be performed by shift personnel or local response personnel as necessary.

5.3.2 First Aid/Medical Response

Off-site emergency medical responders will be requested to report to the scene and initiate first aid treatment to stabilize the patient and prepare for transport to a medical facility. One or more First Aid kits are located in the facility. Injuries may be complicated by the presence of radiation and/or a contaminating substance (chemical or radiological). Given the design of the fuel/GTCC storage canisters, radiological contamination is unlikely, but should be evaluated. The patient will be assessed to determine if a life-threatening condition exists and appropriate actions taken to either contain or remove the contamination. In addition, environmental factors will be taken into account regarding the need to stabilize the patient in place or remove to a safer area (i.e. lower radiation levels, etc.). Maine Yankee maintains a Letter of Agreement with the Wiscasset Ambulance Service for transporting injured/contaminated workers from the site to a receiving hospital. In addition, agreements have been made with the Midcoast Hospital (Brunswick) for treating personnel with various types of injuries/conditions.

5.3.3 Personnel Monitoring

Personnel working in known radiation areas will be issued dosimetry in accordance with existing radiation protection procedures. During emergency conditions, they normally retain their dosimetry and report to either their assigned emergency station or the assembly area. If a person suspects they may be contaminated, they will be monitored by Radiation Protection personnel.

Emergency support staff will be issued dosimetry as required for assigned tasks.

Exposure control will be maintained in accordance with the site Radiation Protection and ALARA programs. Dose extensions may be granted in excess of the limits of 10CFR20 for special circumstances. These extensions will be in accordance with EPA-400-R-92-001, *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents*. Extensions above the 10CFR20 limits must be approved by the ISS/ED. The anticipated emergency exposures are well within the limits specified in Table 5-1.

TABLE 5-1 GUIDANCE ON DOSE LIMITS FOR EMERGENCY WORKERS ^(a)

Type of Activity	TEDE ^(b)	Condition
All	5 Rem	Maintain ALARA and to the extent practicable limit emergency workers to these limits
Protecting Valuable Property	10 Rem	Lower dose not practicable.
Life Saving or Protection of Large Populations	25 Rem	Lower dose not practicable.
	>25 Rem	Only on a voluntary basis to persons fully aware of the risks involved, including the numerical levels of dose at which acute effects of radiation will be incurred and numerical estimates of delayed effects.

(a) From EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

(b) Sum of the deep dose equivalent from the external sources and the committed dose equivalent from the internal exposures to non-pregnant adults from exposure and intake during an emergency situation. Dose limits to the eye should be 3 times the listed value. Dose limits to any other organ (including skin and body extremities) should be 10 times the listed value.

5.3.4 Decontamination Capabilities

Survey instrumentation for personnel frisking is available. Personnel contamination identified during the initial survey will require the contaminated individual to remove protective apparel, re-survey, and if skin contamination levels are identified, perform decontamination as directed by radiation protection personnel.

In the event that accident conditions result in a contaminated injured individual, the victim's rescue and medical treatment take precedence over the victim's radiation exposure due to bodily contamination. Gross decontamination of the victim (generally limited to the removal of contaminated articles of clothing) will be accomplished to the extent that the health of the patient is not affected. Decontamination measures associated with wounds will be performed under the joint supervision of the attending physician at the hospital and the responding radiation protection representative.

5.3.5 Contamination and Hazard Exposure Control

Surveys will be conducted to determine which areas contain contamination of either a radiological nature or a hazardous substance. These areas will be identified by either marking with boundary rope or tape and access will be limited and controlled accordingly by the radiation protection personnel. Monitoring of the area will be conducted using appropriate equipment, based on the type of contamination. All personnel required to work in the area will be provided appropriate personnel protective equipment (coveralls, booties, gloves, etc.) by the Radiation Protection contractor. The level of protection will be determined by the ISS/ED or other designated personnel.

5.3.6 Emergency Action

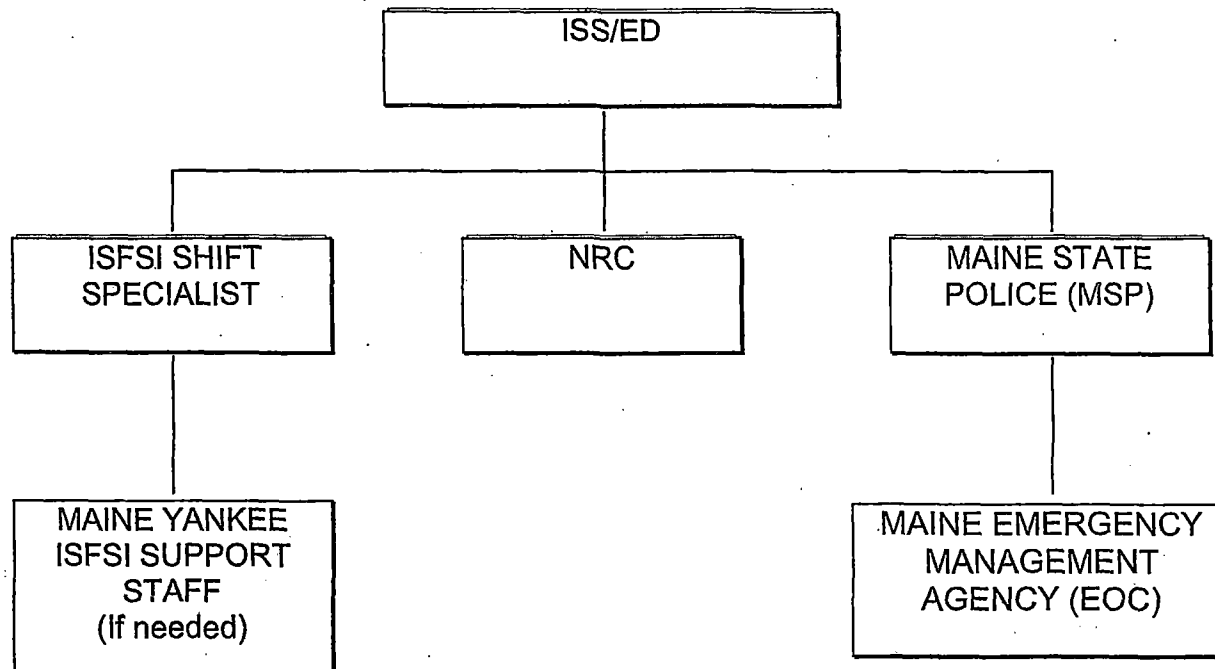
This plan permits emergency response personnel to take reasonable action that departs from a license condition or a technical specification in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specifications can provide adequate or equivalent protection is immediately apparent.

5.4 Coordination with Offsite Agencies

There is no response required from State agencies. State government response is expected to be limited to recording the notification of the emergency, periodically receiving updated information on the emergency, and coordinating public information news releases. Upon request, Local government agencies (i.e. fire, police, ambulance) will respond to the ISFSI during an emergency, if necessary.

If needed, provisions exist for limiting traffic on roads leading to the Maine Yankee site. These actions would be coordinated through the Maine State Police or the Lincoln County Sheriff's Office, Wiscasset, Maine.

FIGURE 5-1
MAINE YANKEE INITIAL NOTIFICATION AND ACTIVATION PROCESS



6.0 FACILITIES AND EQUIPMENT

6.1 Control Center

The Control Center in the Security/Operations Building is the primary facility where ISFSI conditions are monitored and corrective actions are developed to mitigate any abnormal occurrence. Emergency conditions classified as UEs are managed by the ISS/ED from the Control Center or other appropriate location.

The Control Center provides space for the designated members of the ISFSI Emergency support staff to conduct analysis and support functions in response to the event. The Control Center may be activated for other reasons at the discretion of the ISS/ED. The following functions are coordinated from the Control Center: emergency management, offsite notifications and communication, and facility restoration planning.

The Control Center is sized to accommodate personnel performing communications, radiological assessment, general engineering and analysis tasks. Communication systems are available to allow interaction with offsite organizations, as necessary. Various equipment has been assembled and stored in or near the Control Center for use by support staff, including personal protective equipment, and radiation monitoring equipment. The Control Center has nearby office space to accommodate any required offsite personnel.

6.2 Radiation Controls Checkpoint

The Radiation Controls (RC) Checkpoint is located in the Security/Operations Building. Personnel dosimetry is issued at this point and a radiological emergency kit is available.

6.3 Assembly Area

Personnel directed to evacuate the PA will be directed to report to an assembly area designated by the ISS/ED.

6.4 Equipment

Appropriate equipment is maintained for emergency response activities in the ISFSI Security/Operations Building. Required supplies are inventoried to ensure operability and availability at all times.

Controlled copies of facility documents (drawings, procedures, Technical Specifications, SARs, etc.) are maintained in, or in the areas adjacent to the Control Center. This information is readily available for support staff use.

6.5 Communications

6.5.1 Onsite Communication Systems

6.5.1.1 Commercial Telephone System

The commercial telephone system is the primary means of onsite communication during an emergency. This system has an independent backup power configuration, which incorporates a combination of batteries and an emergency diesel generator to ensure uninterrupted operation on a loss of normal power to the ISFSI telephone system.

6.5.1.2 Paging System

A general voice paging system is available with speakers on the interior and exterior of the Security/Operations Building.

6.5.1.3 Radio System

ISFSI staff will be equipped with portable radios for onsite communications. One or more licensed frequencies will be used for routine communications, and one or more state police frequencies will be used for offsite routine and emergency communications.

6.5.2 Offsite Communications Systems

6.5.2.1 Telephone to the Maine State Police

Commercial telephones are used to establish communications between the Maine Yankee ISFSI Control Center and the Maine State Police (MSP). This is the primary method of informing State of Maine personnel of a declared emergency at the Maine Yankee ISFSI. Both organizations have telephones in a location that is staffed 24 hours a day, 7 days a week.

6.5.2.2 Maine State Police Radio

In the event the commercial telephone circuits fail, the MSP can be contacted via radio from the Control Center and from the ISFSI Security Offices using either of two State Police frequencies installed on these radios (State Police - Zone 2 and state-wide car-to-car (SWCC). SWCC frequency can also be used to communicate with the Lincoln County Sheriffs Office. The ISFSI radio system is powered from the normal power company service grid. Back up power is provided by a UPS system.

6.5.2.3 NRC Emergency Notification

In the event of an emergency at the Maine Yankee ISFSI, the NRC will be notified within one hour using the ENS telephone system in accordance with 10 CFR 50.72(a). This line is not anticipated to be established continuously, but used primarily to provide periodic informational updates to the NRC.

6.6 Fire Suppression

Fire extinguishers located at the ISFSI are used to help extinguish or contain a fire to the area of origin and minimize involvement of adjacent areas until the Wiscasset Fire Department responds to the scene. A fire hydrant is located near the ISFSI for use by the Wiscasset Fire Department.

7.0 RESPONSIBILITIES

The Emergency Organization is comprised of on-shift ISFSI personnel. Detection and recognition of conditions that warrant declaration of an emergency, in accordance with the EALs, is the responsibility of the ISFSI Shift Supervisor (ISS). Upon declaration of an emergency, the on-shift organization assumes their emergency response duties and implements this plan. The minimum on-shift staff required for initial emergency response consists of the ISS/ED (Fig. 7-1).

The ISS/ED may call in support staff in numbers and disciplines necessary to support the response and recovery actions required for the event. Radiation Protection support is available on a call-in basis if not present on-site at the onset of an emergency.

7.1 On-shift Organization

7.1.1 ISFSI Shift Supervisor /Emergency Director

The ISS is the qualified emergency representative on-shift. The ISS assumes the position of ISS/ED. The ISS/ED executes any actions deemed necessary to mitigate the consequences of the emergency condition and restore the facility to a safe and stable configuration.

The primary responsibilities of the ISS/ED include:

- Classification and emergency declaration of the incident
- Notification and request for assistance from local response agency, including medical assistance as necessary
- Notification and interface with offsite agencies
- Notification of ISFSI support staff
- Direction and control of available personnel
- Initiation of immediate corrective actions, if any
- Direction, control, communications and public information
- Authorization of onsite protective actions
- Establish priorities for the Control Center staff
- Provide periodic updates to the NRC
- Determine the need for offsite/contractor assistance
- Mitigation and recovery

The ISS/ED is responsible for maintaining the integrity of the ISFSI and all operational activities in the facility. The ISS/ED may be relieved by another qualified ED if conditions warrant.

7.1.2 Shift Specialist

The ISFSI Shift Specialist is responsible for maintaining facility security in accordance with the ISFSI Security Plan.

The primary responsibilities of the Shift Specialist during an emergency is:

- Maintaining site security and access control from the Central Alarm Station (CAS)
- Personnel Accountability in the ISFSI Protected Area (PA)
- Notification of the support staff as requested by the ISS/ED
- Notification of offsite Agencies as requested by the ISS/ED
- Search and Rescue coordination, as necessary
- Fire response coordination, as necessary.

7.2 Augmented Organization

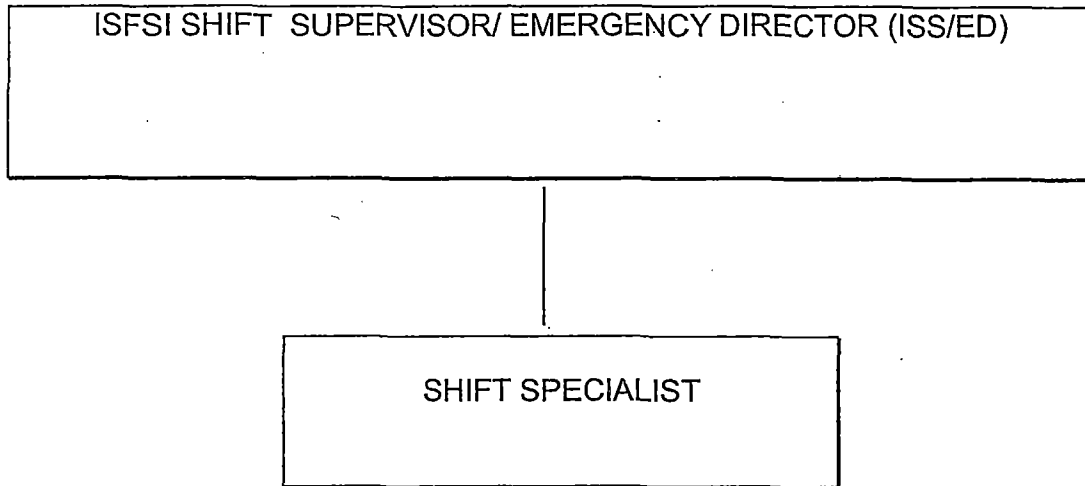
The need for an augmented response by support staff is determined by the ISS/ED on a case by case basis for the Unusual Event (UE) classification. If needed, the augmented support staff is expected to be in place to support emergency response activities within approximately 2 hours. Augmented response personnel may be provided by a contracted service.

7.2.1 Support Staff

Available facility staff and/or emergency services contractors will be called in as necessary to assist in the response, including:

- Perform spent fuel storage condition assessments, if necessary
- Assess the extent of damaged equipment
- Identify short and long-term repair needs
- Establish initial repair priorities and deploy repair teams
- Coordinate available resources to restore equipment and systems based on the direction of the ISS/ED
- Handle logistical needs
- Perform radiological and environmental surveys as necessary.
- Developing public information materials for release to the news media as necessary, and maintaining liaison with news media and State of Maine information staff.

**FIGURE 7-1
MAINE YANKEE ISFSI
MINIMUM ON-SHIFT EMERGENCY ORGANIZATION**



8.0 MAINTAINING EMERGENCY PREPAREDNESS

The ISFSI Manager or designee is responsible for ensuring the availability of adequate emergency support staff and for approval of the ISFSI Emergency Plan and Implementing Procedures (IEPIPs).

The ISFSI Manager is also responsible for ensuring the following tasks and functions are completed:

- The maintenance of readiness of the on-site emergency response facilities and equipment;
- Development and maintenance of the ISFSI Emergency Plan;
- Development and maintenance of the associated implementing procedures;
- Preparation of scenarios for training drills and exercises;
- Conduct of drills and exercises;
- Provision of input to emergency preparedness training of the support staff;
- Returning emergency equipment and supplies used during a drill, exercise or actual emergency to a state of readiness following the termination of the drill, exercise or emergency;
- Providing support for the annual radiation monitoring drill and medical emergency drill.
- Reviewing ISFSI EALS with state and local government authorities on an annual basis in accordance with 10 CFR 50 Appendix E (IV)(B).

8.1 Training

The Maine Yankee ISFSI Emergency Plan Training Program consists of lesson plans designed to provide the skills and knowledge necessary to maintain staff proficiency. Each IEPIP will be reviewed to identify activities that are not considered to be a part of the assigned individuals day-to-day routine function (i.e. use of telephones, general communication protocol, etc.). Lessons will focus on non-routine and specialized activities that are particular to the assigned function and overall emergency response actions. Training may consist of, but not be limited to, classroom lecture, self-study, practical demonstrations (where necessary, as specified in the lesson plan), and facility drills.

8.1.1 Emergency Staff Training

Each individual selected for assignment to the on site staff or the support staff will be provided training designed to familiarize the person with their duties, responsibilities and expected actions in the event of a condition that requires the support staff to be mobilized. This initial training will be completed prior to the individual assuming the emergency response duty.

Each on shift and support staff member will be provided continuing training for their assigned duties. This training will be conducted annually. Continuing training addresses general changes to the ISFSI Emergency Plan, facilities, equipment, regulations, policies and specific changes to their responsibilities (which are not considered part of their routine duties). It also addresses problem areas identified during audits, drills or exercises.

8.1.2 ISFSI Access Training

The ISFSI Access Training program provides employees and contractors routinely onsite the basic elements of the ISFSI Emergency Plan and expected actions during an emergency. Information is reviewed annually as part of site access training.

8.1.3 Offsite Assistance Training

Organizations which may be called upon to render assistance onsite will be offered general facility familiarization sessions on an annual basis. These sessions may include a walk down of the general facility, safety, building layout, access protocol, communications capabilities and security requirements. Radiological orientation training will also be offered annually.

8.2 Review and Updating of the ISFSI Emergency Plan and Implementing Procedures

8.2.1 ISFSI Emergency Plan (IEP) Review

This plan, including all written agreements between Maine Yankee and other parties, will be reviewed annually. Approved changes to the plan will be incorporated into the appropriate implementing procedures along with the plan changes. Letters of Agreement will be reviewed annually and verified to be in effect at the time of the plan review. This may be accomplished via written correspondence or documented telephone conversation.

This plan is a controlled document to ensure changes are incorporated into distributed copies. Plan changes will be subject to management review and approval. Plan changes will be issued as an entire revision with changes identified on the affected pages.

8.2.2 Emergency Plan Implementing Procedure Review

ISFSI Emergency Plan Implementing Procedures (IEPIPs) will be reviewed and revised in accordance with plant procedure control guidelines, and as necessary. Periodic revisions will be incorporated whenever a plan change is made that affects the procedure or other circumstances dictate a revision is necessary. IEPIPs will be subject to management review and approval.

8.2.3 Periodic Surveillance Program

Facilities and equipment will be maintained in accordance with surveillance procedures. Inventories of emergency plan equipment will be conducted on a semi-annual basis and after facility activation (actual event or drill activity). A walkdown of the Control Center will be conducted on a quarterly basis to ensure facility readiness is maintained.

Telephone numbers that are important to emergency notification and are contained in the IEPIPs will be verified on a quarterly basis.

8.2.4 Communications Systems Checks

Telephones, radios and paging systems used for on-site and off-site emergency communications will be tested quarterly per communications surveillance procedures.

8.3 Drills and Exercises

In addition to the emergency plan training described earlier, the facility staff will conduct periodic drills to enhance skills and knowledge of the practical implementation of the IEP. Periodic drills will be scheduled with various objectives to demonstrate these capabilities. Some drills will focus on singular functions (such as communications capabilities) while others will involve the activation of the support staff. These evolutions serve as an extension of the training program, allowing interaction between evaluators and responders to reinforce procedural requirements and overall process implementation.

8.3.1 Drills

In addition to training drills discussed above, the following drills will be conducted annually;

- Support Staff Drill – involving a combination of some of the principal functional areas of emergency response capabilities. The biennial exercise satisfies the annual support staff drill requirements.
- Radiological Monitoring Drill - demonstrating conducting general area surveys.
- Medical Emergency Drill - demonstrating the capability to transport an injured worker offsite.
- Fire Drill - conducted in accordance with the Fire Protection Program.

8.3.2 Exercises

An exercise will be conducted once every two years to demonstrate the capability to implement the ISFSI Emergency Plan. Objectives will be developed to ensure major elements of the emergency plan are demonstrated and evaluated to ensure the appropriate level of preparedness is being maintained.

Offsite response organizations will be invited to participate in biennial exercises.

8.3.3 Drill and Exercise Evaluation

Facility staff will evaluate the exercise and drills. Expectations for evaluators will be discussed with each evaluator prior to the drill. Whenever possible, evaluators should have present or recent ISFSI emergency responsibilities and be assigned to evaluate functions/areas consistent with their emergency assignment. Following the drill/exercise a critique of the evolution will be conducted. Comments will be evaluated and dispositioned by Maine Yankee and deficiencies will be corrected through retraining, remedial drills, or by other means. Comment resolution will be assigned to appropriate personnel for final implementation.

8.4 Independent Program Review

An independent program review of the ISFSI emergency preparedness program will be conducted once every 12 months in accordance with 10 CFR 50.54(t) or as necessary, based on the assessment against performance indicators, and as soon as reasonably practical after a change occurs with personnel, procedures, equipment or facilities that potentially could adversely affect emergency preparedness, but no longer than 12 months after the change. Items to be reviewed should include, but not be limited to, adequacy of interfaces with State and local government agencies, implementing procedures, drills, exercises and capabilities.

9.0 RECOVERY

The primary objective of the facility staff is to mitigate the consequences of an emergency and restore the facility to a safe condition. Restoration of the facility effectively begins with the first action taken in response to the event and terminates when the facility resumes normal operations.

When conditions have stabilized and a full assessment of the event has been conducted, the facility staff will focus on establishing a plan to verify operability of all systems/components necessary to maintain and monitor the integrity of the spent fuel.

The ISFSI Manager or designee will coordinate the restoration of the facility and has the authority to take the necessary actions to ensure the facility is returned to a safe condition. Recovery responsibilities of the ISFSI Manager include, but are not limited to:

- Development of the site recovery plan.
- Maintain comprehensive hazard assessment of the facility.
- Prioritize clean-up of affected areas/equipment.
- Isolate and repair damaged equipment/systems.
- Document all actions taken related to the recovery operations.

10.0 OFFSITE ASSISTANCE

Response from organizations that are not associated with Maine Yankee are not expected to be necessary, except for fire, medical emergencies or hazardous materials incidents. Letters of Agreement exist with organizations that may be called upon, on an as-needed basis, to provide assistance.

The Wiscasset Fire Department and Wiscasset Ambulance Service have standing agreements to assist Maine Yankee in the event of a fire, hazardous materials incident or medical emergency.

Maine Yankee maintains a Letter of Agreement with the MidCoast Hospital in Brunswick for treatment of radiologically contaminated and injured workers.

Response from the State of Maine will be limited to acknowledging notification of the event. No mitigating actions are anticipated to be necessary in response to an event at Maine Yankee. Precautionary actions are anticipated to be similar to those taken in responses to preparations for severe weather, etc.

Other agreements exist for specialized services that can be called upon as needed.

11.0 REFERENCES

1. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-400-R-92-001, May 1992.
2. NEI 99-01 Final Rev. 4 "Methodology for Development of Emergency Action Levels," January 2003.
3. NUREG-1140, "Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees."
4. NAC Safety Analysis Report, UMS Universal Storage System, Docket 72-1015, October 1999.
5. NRC Regulatory Guide 1.101, Rev. 4, "Emergency Planning for Nuclear Power Plants.", July 2003.
6. NRC Regulatory Issue Summary 2015-14, "Issuance of Enforcement Guidance Memorandum - Emergency Plan and Emergency Plan Implementing Procedure Updates", October 30, 2015.

APPENDIX I - ASSISTANCE AGREEMENTS

ORGANIZATION
Mid-Coast Hospital
Wiscasset Fire Department
Wiscasset Ambulance Service

APPENDIX II - SUPPORTING PLANS AND DOCUMENTS

Defueled Safety Analysis Report (DSAR)

FP-1, Fire Protection Program

Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan and
Supporting Security Procedures

APPENDIX III – EMERGENCY PLAN IMPLEMENTING PROCEDURES

1. Emergency Plan Implementing Procedures

- a. EO – 1, Emergency Planning Administration
- b. EO – 2, Response to Accident and Natural Phenomena Events
- c. EO – 5, Emergency Plan Implementation