May 2, 2013

Mr. James Connell
ISFSI Manager
Maine Yankee Atomic Electric Company
321 Old Ferry Road
Wiscasset, ME 04578-4922

SUBJECT: RESPONSE TO EXEMPTION REQUEST FOR PORTIONS OF TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* PART 50, APPENDIX E, AND SECTION 50.47 OF TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* FOR THE MAINE YANKEE ATOMIC POWER STATION (TAC NO. L24661)

Dear Mr. Connell:

This is in response to your letter dated June 8, 2012 (Agencywide Document Access and Management System (ADAMS) Accession No. ML12172A298), requesting an exemption from specific requirements of Section 50.47 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Emergency Plans," and 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."

The U.S. Nuclear Regulatory Commission (NRC) staff (staff) reviewed the exemption requests from Maine Yankee Atomic Power Station (MY). Based upon the enclosed staff evaluation, the staff determined the exemptions you requested can be granted to the extent the relevant regulations are applicable to MY.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the publicly available records component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions, please contact me at (301) 492-3300, or John Goshen of my staff, at (301) 492-3325.

Sincerely,

/RA/

Mark D. Lombard, Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 50-309, 72-30
TAC No.: L24661

Enclosure: As stated

cc: Maine Yankee Service List w/o Enclosure

STAFF EVALUATION BY

THE OFFICE OF NUCLEAR SECURITY AND INCIDENT RESPONSE

RELATED TO MAINE YANKEE ATOMIC POWER COMPANY,

MAINE YANKEE ATOMIC POWER STATION

EXEMPTION REQUEST FOR PORTIONS OF

10 CFR PART 50 APPENDIX E, AND 10 CFR 50.47

DOCKET NOS. 50-309 AND 72-0030

1.0 INTRODUCTION

On November 23, 2011, the U.S. Nuclear Regulatory Commission (NRC) issued a final rule amending certain emergency planning (EP) requirements in the regulations that govern domestic licensing of production and utilization facilities (76 *Federal Register* (FR) 72560; November 23, 2011) (EP Final Rule). The EP Final Rule was effective on December 23, 2011, with various implementation dates for each of the rule changes.

Maine Yankee Atomic Power Company (MYAPC) is holder of Facility Operating License DPR-36 for the Maine Yankee Atomic Power Station (MY). The license, issued pursuant to the Atomic Energy Act of 1954, as amended, and Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), allows MY to possess and store spent nuclear fuel at the permanently shut down and decommissioned facility under the provision of 10 CFR Part 72, Subpart K, "General License for Storage of Spent Fuel at Power Reactor Sites." In a letter dated August 7, 1997 (Reference 1), MYAPC informed the NRC that the MY facility had permanently ceased power operations and fuel had been removed from the reactor and placed in the fuel pool.

After ceasing operations at the reactor, MYAPC began transferring spent nuclear fuel from the spent fuel pool to the MY independent spent fuel storage installation (ISFSI) for long term dry storage. These activities were completed in 2004 and final decommissioning of the reactor site was completed in 2005. The MY ISFSI is a vertical dry cask storage facility for spent nuclear fuel. The ISFSI is located on approximately three acres of land that was not released for unrestricted use after completion of decommissioning of the reactor (Reference 2).

On June 8, 2012, MYAPC submitted a letter, "Request for Exemption to Revised Emergency Planning Regulations" (Reference 3), requesting exemption from specific EP requirements of 10 CFR 50.47 and Appendix E to 10 CFR Part 50 for the MY ISFSI.

MYAPC states that this exemption request and its impact on the corresponding emergency plan: (1) is authorized by law; (2) will not present an undue risk to the public health and safety; and (3) is consistent with the common defense and security in accordance with 10 CFR 50.12. MYAPC states that its intent in submitting this exemption request is to maintain the regulatory structure in place prior to issuance of the EP Final Rule and, therefore, does not propose any changes to the Emergency Plan or implementing procedures other than simple regulatory reference changes that can be implemented under 10 CFR 50.54(q).

2.0 DISCUSSION

On August 7, 1997, MYAPC notified the NRC that it had decided to cease operating MY. On November 6, 1997 (Reference 4), MYAPC requested an exemption from the provisions of 10 CFR 50.54(q) that required emergency plans to meet all of the standards of 10 CFR 50.47(b) and all of the requirements of Appendix E to 10 CFR Part 50 so that the licensee would have to meet only certain EP standards and requirements. Additionally, MYAPC requested approval of a proposed MY Defueled Emergency Plan (DEP) that proposed to meet those limited standards and requirements.

The NRC approved the requested exemption and the DEP on September 3, 1998 (Reference 5). The Safety Evaluation Report (SER) established EP requirements for MY as documented in the DEP. The NRC staff (staff) concluded that the licensee's emergency plan was acceptable in view of the greatly reduced offsite radiological consequences associated with the decommissioning plant status. The staff found that the postulated dose to the general public from any reasonably conceivable accident would not exceed the U.S. Environmental Protection Agency (EPA) Protective Action Guides (PAGs), and for the bounding accident, the length of time available to respond to a loss of spent fuel cooling or reduction in water level gave confidence that offsite measures for the public could be taken without preparation.

On August 28, 2002 (Reference 6), the DEP was revised under 10 CFR 50.54(q) to include an emergency plan specific to the onsite ISFSI as the licensee commenced moving spent nuclear fuel to the ISFSI. This ISFSI Emergency Plan was included as an Attachment III to the DEP.

According to MYAPC, the power plant buildings have been dismantled and materials to be removed have been shipped offsite. As part of completing decommissioning, all spent nuclear fuel and greater than class C (GTCC) waste was ultimately transferred to the ISFSI in February 2004.

On September 27, 2004 (Reference 7), the DEP was revised under 10 CFR 50.54(q) to reflect that all spent nuclear fuel had been transferred into the ISFSI, the Spent Fuel Pool was drained, and all evolutions that could produce a radiological event serious enough to trigger the declaration of an emergency at the plant have been completed. Therefore, the licensee terminated the DEP but retained the MY ISFSI Emergency Plan. This action eliminated all facets of the emergency plan not related to the ISFSI. The standalone MY ISFSI Emergency Plan reflected the emergency preparedness and response requirements applicable to MYAPC in light of the exemption granted in 1998. The ISFSI Emergency Plan provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the MY ISFSI for the same reasons that the NRC found that the DEP met the applicable EP requirements. Since the approval and SER for the original MY DEP,

MYAPC has not requested nor received substantive exemptions from emergency planning requirements.

Revision 1 of the MY ISFSI Emergency Plan, February 17, 2011 (Reference 8), reflects the current conditions, where the only thing remaining onsite is the ISFSI and its related support systems, structures, and components.

With the Final EP Rule, several requirements in 10 CFR Part 50 were modified or added, including changes in Section 50.47, Section 50.54, and Appendix E. Specific implementation dates were provided for each EP rule change. The Final EP Rule codified certain voluntary protective measures contained in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," and generically applicable requirements similar to those previously imposed by NRC Order EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures," dated February 25, 2002.

In addition, the EP Final Rule amended other licensee emergency plan requirements to: (1) enhance the ability of licensees in preparing for and in taking certain protective actions in the event of a radiological emergency; (2) address, in part, security issues identified after the terrorist events of September 11, 2001; (3) clarify regulations to effect consistent emergency plan implementation among licensees; and (4) modify certain EP requirements to be more effective and efficient. However, the EP Final Rule was only an enhancement to the NRC's regulations and was not necessary for adequate protection. On page 72563 of the *Federal Register* notice for the EP Final Rule, the Commission "determined that the existing regulatory structure ensures adequate protection of public health and safety and common defense and security."

3.0 REGULATORY EVALUATION

In the Final Rule for Storage of Spent Fuel in NRC-Approved Storage Casks at Power Reactor Sites (55 FR 29181; July 18, 1990), the NRC amended its regulations to provide for the storage of spent nuclear fuel under a general license on the site of any nuclear power reactor. In its Statement of Considerations (SOC) for the Final Rule (55 FR 29185), the Commission responded to comments related to emergency preparedness for spent fuel dry storage, stating, "The new 10 CFR 72.32(c) … states that, 'For an ISFSI that is located on the site of a nuclear power reactor licensed for operation by the Commission, the emergency plan required by 10 CFR 50.47 shall be deemed to satisfy the requirements of this section.' One condition of the general license is that the reactor licensee must review the reactor emergency plan and modify it as necessary to cover dry cask storage and related activities. If the emergency plan is in compliance with 10 CFR 50.47, then it is in compliance with the Commission's regulations with respect to dry cask storage."

In the SOC for the Final Rule for EP requirements for ISFSIs and Monitored Retrievable Storage Installation (MRS) (60 FR 32430; June 22, 1995), the Commission stated, in part, that "current reactor emergency plans cover all at-or near reactor ISFSI's. An ISFSI that is to be licensed for a stand-alone operation will need an emergency plan established in accordance with the requirements in this rulemaking" (60 FR 32431). The Commission responded to comments (60 FR 32435) concerning offsite emergency planning for ISFSIs or an MRS and concluded that "the offsite consequences of potential accidents at an ISFSI or a MRS would not warrant establishing Emergency Planning Zones."

As part of the review for MYAPC's current exemption request, the staff also used the EP regulations in 10 CFR 72.32 and Spent Fuel Project Office Interim Staff Guidance (ISG) – 16, "Emergency Planning," (Reference 9) as references to ensure consistency between specific-licensed and general-licensed ISFSIs.

4.0 TECHNICAL EVALUATION

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when: (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) when special circumstances are present. The staff reviewed this request to determine whether the specific exemptions should be granted.

4.1 Specific Exemptions for 10 CFR 50.47

MYAPC's letter dated June 8, 2012, requested an exemption from certain sections (as indicated by strike through) of 10 CFR 50.47 for the MY ISFSI.

(4.1.1) 10 CFR 50.47(b)(3)

(3) Arrangements for requesting and effectively using assistance resources have been made, [~~*arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made,*~~ [*1998 exemption*]] ~~arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made,~~ and other organizations capable of augmenting the planned response have been identified.

In 1998, the NRC exempted MYAPC from the requirement in 10 CFR 50.47(b)(3) that "arrangements to accommodate State and local staff at the licensee's near site Emergency Operations Facility (EOF) have been made." The NRC concluded that the licensee's proposal to discontinue offsite emergency planning activities and reduce the scope of onsite emergency planning was acceptable in view of the greatly reduced offsite radiological consequences associated with the current state of the plant in that all spent fuel and GTCC waste had been transferred to the ISFSI. Additionally, the staff concluded that the MY DEP provided for an acceptable level of emergency preparedness at the MY in its shutdown and defueled condition, and also provided reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the MY ISFSI.

The 2011 EP Final Rule changed the regulation by removing the term "near site" from 10 CFR 50.47(b)(3). MYAPC did not request an exemption from the new part of this provision because in 1998, MYAPC was granted an exemption from the requirement to have an EOF. The fact that an EOF need not be near the site does not change the licensee's current exemption from the underlying requirement to have an EOF because the basis for the exemption has not changed. Therefore, the staff concludes that MY continues to be exempt from the requirement that "arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made," of 10 CFR 50.47(b)(3).

(4.1.2) 10 CFR 50.47(b)(10)

(10) ~~*A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate.*~~ [*1998 exemption*] ~~Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. *Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.*~~ [*1998 exemption*]

In 1995, the Commission provided its view on evacuation planning for an ISFSI not at a reactor site in its Statement of Considerations for the Final Rule for EP requirements for ISFSIs and MRSs: "The Commission does not agree that as a general matter emergency plans for an ISFSI must include evacuation planning" (60 FR 32439).

In 1998, the NRC exempted MYAPC from 50.47(b)(10) in its entirety and concluded that the licensee's proposal to discontinue offsite emergency planning activities and reduce the scope of onsite emergency planning was acceptable in view of the greatly reduced offsite radiological consequences associated with the current state of the plant in that all spent fuel and GTCC waste had been transferred to the ISFSI. The NRC determined that no credible events would result in doses to the public beyond the owner controlled area boundary that would exceed the EPA PAGs. Therefore, EP zones (EPZ) beyond the owner controlled area and the associated protective actions developed from evacuation time estimates (ETE) were no longer required. Additionally, the staff concluded that the MY DEP provided for an acceptable level of emergency preparedness at MY in its shutdown and defueled condition, and also provided reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at MY.

The 2011 EP Final Rule changed the regulation by adding the requirements, "Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis," to 10 CFR 50.47(b)(10). These requirements to develop and update an ETE are offsite activities. The NRC granted MY an exemption from offsite emergency planning activities in 1998. Because the basis for the 1998 exemption has not changed and is the same basis for MYAPC's current exemption request, the staff concludes that MY is exempt from the new requirements, "Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis," of 10 CFR 50.47(b)(10).

4.2 Specific Exemptions for 10 CFR Part 50, Appendix E, Section IV

MYAPC's letter dated June 8, 2012, requested an exemption from certain sections of Appendix E to 10 CFR Part 50 (as indicated by strike through), for the MY ISFSI.

(4.2.1) <u>10 CFR Part 50, Appendix E, Section IV.1</u>

1. The applicant's emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth below, i.e., organization for coping with radiological emergencies, assessment actions, activation of emergency organization, notification procedures, emergency facilities and equipment,

training, maintaining emergency preparedness, recovery, ~~and onsite protective actions during hostile action~~. In addition, the emergency response plans submitted by an applicant for a nuclear power reactor operating license under this part, or for an early site permit (as applicable) or combined license under 10 CFR Part 52, shall contain information needed to demonstrate compliance with the standards described in § 50.47(b), and they will be evaluated against those standards.

In the EP Final Rule, the Commission defined "hostile action" as, in part, an act directed toward a nuclear power plant or its personnel. The NRC excluded non-power reactors (NPR) from the definition of "hostile action" at that time because an NPR is not a nuclear power plant and a regulatory basis had not been developed to support the inclusion of NPRs in that definition. Further analysis and stakeholder interactions would be needed prior to including NPRs in the definition of "hostile action."

Likewise, an ISFSI is not a nuclear power plant. The staff also considered the similarities between the MY facility and an NPR to determine whether the MY facility should be included within the definition of "hostile action." NPRs pose lower radiological risks to the public from accidents than do power reactors because: (1) the core radionuclide inventories are lower as a result of their lower power levels and often shorter operating cycle lengths; and (2) NPRs have lower decay heat associated with a lower risk of core melt and fission product release in a loss-of-coolant accident. The MY facility also has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. This fact formed part of the basis for MYAPC's 1998 exemptions from offsite EP requirements. For all of these reasons, the staff concludes that the MY ISFSI is excluded from the definition of "hostile action."

Because the MY ISFSI is not a facility that falls within the definition of "hostile action" in Appendix E of Part 50, the NRC staff concludes that MY is exempt from the requirement in 10 CFR Part 50, Appendix E, Section IV.1 to have an emergency plan that contains "onsite protective actions during hostile action." The remaining requirements of Appendix E, Section IV.1 apply to MY.

(4.2.2) <u>10 CFR Part 50, Appendix E, Section IV.2</u>

~~2. *This nuclear power reactor license applicant shall also provide an analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations* [1998 exemption], using the most recent U.S. Census Bureau data as of the date the applicant submits its application to the NRC.~~

In 1998, the NRC exempted MYAPC from the following requirement in 10 CFR Part 50, Appendix E, Section IV, "The nuclear power reactor operating license applicant shall also provide an analysis of the time required to evacuate and for taking other protective actions for various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations" on the same grounds as discussed in Section 4.1.2 above.

The 2011 EP Final Rule changed 10 CFR Part 50, Appendix E, Section IV, in part, by dividing the former first paragraph of Section IV into 7 smaller paragraphs and, in new paragraph 2, removing the language "and for taking other protective actions" and including the requirement, "using the most recent U.S. Census Bureau data as of the date the applicant submits its

application to the NRC." MYAPC's request for an exemption from the new part of paragraph 2 is granted because MY was previously granted an exemption from offsite emergency planning activities, including activities regarding ETEs. Because MY does not have to prepare ETEs, it does not need to comply with the requirement that the ETE's be based on the most recent U.S. Census Bureau data.

Based on these reasons and the analysis in Section 4.1.2 above, the staff concludes that MY continues to be exempt from the requirement, "The nuclear power reactor operating license applicant shall also provide an analysis of the time required to evacuate and for taking other protective actions for various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations," and is exempt from the requirement, "using the most recent U.S. Census Bureau data as of the date the applicant submits its application to the NRC," in 10 CFR Part 50, Appendix E, Section IV.2.

(4.2.3) 10 CFR Part 50, Appendix E, Section IV.3

~~3. Nuclear power reactor licensees shall use NRC approved evacuation time estimates (ETEs) and updates to the ETEs in the formulation of protective action recommendations and shall provide the ETEs and ETE updates to State and local governmental authorities for use in developing offsite protective action strategies.~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.3, for the reasons provided in Section 4.2.2 above.

(4.2.4) 10 CFR Part 50, Appendix E, Section IV.4

~~4. Within 365 days of the later of the date of the availability of the most recent decennial census data from the U.S. Census Bureau or December 23, 2011, nuclear power reactor licensees shall develop an ETE analysis using this decennial data and submit it under § 50.4 to the NRC. These licensees shall submit this ETE analysis to the NRC at least 180 days before using it to form protective action recommendations and providing it to State and local governmental authorities for use in developing offsite protective action strategies.~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.4, for the reasons provided in Section 4.2.2 above.

(4.2.5) 10 CFR Part 50, Appendix E, Section IV.5

~~5. During the years between decennial censuses, nuclear power reactor licensees shall estimate EPZ permanent resident population changes once a year, but no later than 365 days from the date of the previous estimate, using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. These licensees shall maintain these estimates so that they are available for NRC inspection during the period between decennial censuses and shall submit these estimates to the NRC with any updated ETE analysis.~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.5, for the reasons provided in Section 4.2.2 above.

(4.2.6) 10 CFR Part 50, Appendix E, Section IV.6

~~6. If at any time during the decennial period, the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the nuclear power reactor licensee's currently NRC approved or updated ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase. The licensee shall submit the updated ETE analysis to the NRC under § 50.4 no later than 365 days after the licensee's determination that the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to State and local governmental authorities for use in developing offsite protective action strategies.~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.6, for the reasons provided in Section 4.2.2 above.

(4.2.7) 10 CFR Part 50, Appendix E, Section IV.A.7

7. ~~By June 23, 2014,~~ identification of, and ~~a description of the~~ assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, ~~including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.~~

The staff concludes that MY is exempt from the requirements of 10 CFR Part 50, Appendix E, Section IV.A.7, to amend its emergency plan by June 23, 2014, to: (1) include a description of the assistance expected from appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, beyond the information already contained in MY's emergency plan to meet the requirement of Appendix E, Section IV.A.7 as of December 22, 2011; and (2) identify and describe the assistance expected from appropriate State, local, and Federal agencies with responsibilities for coping with hostile action at the site, as "hostile action" is defined in Appendix E, Section IV.A.7. The NRC grants the first exemption because requiring MY to provide a description of the assistance expected from appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, in light of the low risk of an emergency necessitating offsite assistance and the information already provided by MY in its emergency plan, is an unnecessary burden on the licensee. The NRC grants the second exemption because, as explained in Section 4.2.1 above, MY is exempt from requirements in Appendix E related to a "hostile action."

(4.2.8) 10 CFR Part 50, Appendix E, Section IV.A.9

~~9. By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.~~

In the EP proposed rule (74 FR 23254; May 18, 2009), the NRC asked for public comment on whether the NRC should add a requirement for NPR licensees to perform a detailed analysis demonstrating that on-shift personnel can perform all assigned emergency plan implementation functions in a timely manner without having competing responsibilities that could prevent them from performing their emergency plan functions. The NRC received several comments that opposed a regulation imposing this requirement. In the EP Final Rule, the NRC agreed that this requirement was not necessary for NPR licensees. Staffing at NPRs is generally small, which is commensurate with operating the facility in a manner that is protective of public health and safety. Therefore, the NRC did not include this requirement in the EP Final Rule.

The staff considered the similarity between the staffing levels at ISFSIs like the MY facility and staffing levels at NPRs. The design of the ISFSI provides radiation shielding and contains internal airflow paths that allow decay heat from the spent fuel contents to be removed by natural air circulation around the canister wall. This passive design requires monitoring by minimal staff which is commensurate with operating the ISFSI in a manner that is protective of public health and safety. In the EP Final Rule, the NRC agreed that the staffing analysis requirement was not necessary for NPR licensees due to the small staffing levels required to operate the facility. For the same reason, the staff concludes that MY is exempt from the requirement of 10 CFR Part 50, Appendix E, Section IV.A.9.

(4.2.9) 10 CFR Part 50, Appendix E, Section IV.B.1

1. The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within ~~*and outside*~~ [*1998 exemption*] the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite ~~*and offsite*~~ [*1998 exemption*] monitoring. ~~By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant.~~ The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and State and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis.

The staff concludes that MY is exempt from the requirement in 10 CFR Part 50, Appendix E, Section IV.B.1 that "By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant" because, as explained in Section 4.2.1 above, MY is exempt from requirements in Appendix E related to a "hostile action."

(4.2.10) 10 CFR Part 50, Appendix E, Section IV.C.2

~~2. By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible~~

~~following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.~~

Because ISFSIs have a low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures, and based on the NRC staff's reviews of previous versions of the MY Emergency Plan, the staff concludes that the MY Emergency Plan, as of February 11, 2011, provided: (1) an adequate basis for an acceptable state of emergency preparedness: and (2) in conjunction with arrangements made with offsite response agencies, provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the MY facility. Thus, granting the requested exemption from the requirement in Appendix E, Section IV.C.2, to assess, classify, and declare an emergency condition within 15 minutes and promptly declare an emergency condition, which was not a requirement as of December 22, 2011, would not change these conclusions.

The staff concludes that MY is only exempt from the requirements, "By June 20, 2012," "within 15 minutes," and "to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety," of 10 CFR Part 50, Appendix E, Section IV.C.2, based upon the analysis in this Section 4.2.10 and the licensee commitment in Revision 1 of the MY ISFSI Emergency Plan to notify the NRC operations center immediately after notifications of the appropriate offsite response organizations and not later than one hour after the licensee declares an emergency. The remaining requirements of 10 CFR Part 50, Appendix E.IV.C.2 apply to MY.

(4.2.11) <u>10 CFR Part 50, Appendix E, Section IV.D.3</u>

3. A licensee shall have the capability to notify responsible State and local governmental agencies ~~*within 15 minutes*~~ [*1998 exemption*] after declaring an emergency. ~~*The licensee shall demonstrate that the appropriate governmental authorities have the capability to make a public alerting and notification decision promptly on being informed by the licensee of an emergency condition. Prior to initial operation greater than 5 percent of rated thermal power of the first reactor at the site, each nuclear power reactor licensee shall demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public with the plume exposure pathway EPZ. The design objective of the prompt public alert and notification system shall be to have the capability to essentially complete the initial alerting and notification of the public within the plume exposure pathway EPZ within about 15 minutes. The use of this alerting and notification capability will range from immediate alerting and notification of the public (within 15 minutes of the time that State and local officials are notified that a situation exists requiring urgent action) to the more likely events where there is substantial time available for the appropriate governmental authorities to make a judgment whether or not to activate the public alert and notification system.*~~ [*1998 exemption*] ~~The alerting and notification capability shall additionally~~

~~include administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15 minute design objective for the primary prompt public alert and notification system. *When there is a decision to activate the alert and notification system, the appropriate governmental authorities will determine whether to activate the entire alert and notification system simultaneously or in a graduated or staged manner. The responsibility for activating such a public alert and notification system shall remain with the appropriate governmental authorities.*~~ [*1998 exemption*]

In 1998, the NRC exempted MYAPC from notifying responsible State and local governmental agencies within 15 minutes after declaring an emergency by increasing the notification time to 60 minutes after declaring an emergency. Additionally, the NRC granted MYAPC an exemption for all other remaining requirements in 10 CFR Part 50, Appendix E, Section IV.D.3. The staff concluded that the licensee's proposal to discontinue offsite response measures, such as offsite notification of the general public; State and local response; and a means to provide early notification and clear instructions to the public within the plume exposure pathway EPZ, was acceptable in view of the greatly reduced offsite radiological consequences associated with the defueled and decommissioning status of the plant. See Section 4.1.2 above for further discussion of the basis for the 1998 exemption from offsite EP requirements.

The 2011 EP Final Rule changed 10 CFR Part 50, Appendix E, Section IV.D.3 by adding the following: "The alerting and notification capability shall additionally include administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15 minute design objective for the primary prompt public alert and notification system." MYAPC was previously exempted from offsite emergency planning requirements, including alerting and notification capability requirements. Because MYAPC does not have to meet alerting and notification capability requirements, the NRC determines that MYAPC does not have to meet the backup alerting and notification capability requirements. The requirement to have a backup alerting and notification capability is an offsite emergency planning requirement. Because the basis for granting MYAPC an exemption from offsite emergency planning requirements has not changed, and that basis is the same basis for MYAPC's current exemption request, the NRC staff concludes that MY is exempt from the new requirements of 10 CFR Part 50, Appendix E, IV.D.3 based on the analysis in this section and Section 4.1.2.

MY continues to commit to notify offsite agencies of the existence of an emergency situation within one hour as originally approved by the NRC in the SER for the MY DEP. The current MY ISFSI Emergency Plan requires notification to the Maine State Police and the NRC within one hour of the declaration of an emergency at the MY ISFSI.

(4.2.12) <u>10 CFR Part 50, Appendix E, Section IV.D.4</u>

~~4. If FEMA has approved a nuclear power reactor site's alert and notification design report, including the backup alert and notification capability, as of December 23, 2011, then the backup alert and notification capability requirements in Section IV.D.3 must be implemented by December 24, 2012. If the alert and notification design report does not include a backup alert and notification capability or needs revision to ensure adequate backup alert and notification capability, then a revision of the alert and notification design report must be submitted to FEMA for review by June 24, 2013, and the FEMA-approved backup alert and notification means must be implemented within 365 days after FEMA approval. However, the total time period to implement a FEMA-approved backup alert and notification means must not exceed June 22, 2015.~~

Because the requirements in 10 CFR Part 50, Appendix E, Section IV.D.4 concern a backup alert and notification capability, and MY is exempt from the backup alert and notification capability requirement, the staff concludes that MY is exempt from 10 CFR Part 50, Appendix E, Section IV.D.4. The justification is provided in Section 4.2.11.

(4.2.13) 10 CFR Part 50, Appendix E, Section IV.E.8.a.(i)

8.a.(i) A licensee onsite technical support center ~~*and a licensee near-site emergency operations facility*~~ [*1998 exemption*] from which effective direction can be exercised during an emergency;

In 1998, the NRC exempted MYAPC from the requirements in 10 CFR Part 50, Appendix E, Section IV.E.8, "and a licensee near-site emergency operations facility" for the reasons provided in section 4.1.1 above.

The 2011 EP Final Rule removed the term "near site" from 10 CFR Part 50, Appendix E, Section IV.E.8. MYAPC did not request an exemption from the new part of this provision because in 1998, MYAPC was granted an exemption from the requirement to have an EOF. For the reasons cited in Section 4.1.1 above, the staff concludes that MY is exempt from the requirement, "and a licensee emergency operations facility," of 10 CFR Part 50, Appendix E, Section IV.E.8.a.(i).

(4.2.14) 10 CFR Part 50, Appendix E, Section IV.E.8.a.(ii)

~~(ii) For nuclear power reactor licensees, a licensee onsite operational support center;~~

The 2011 EP Final Rule changed the provision by adding the requirement, "For nuclear power reactor licensees, a licensee onsite operational support center," to 10 CFR Part 50, Appendix E, Section IV.E.8.

NUREG-0696, "Functional Criteria for Emergency Response Facilities," dated February 1981 (Reference 10), provides that the Operational Support Center (OSC) is an onsite area separate from the control room and the Technical Support Center (TSC) where licensee operations support personnel will assemble in an emergency. The OSC should provide a location where plant logistic support can be coordinated during an emergency and restrict control room access to those support personnel specifically requested by the shift supervisor.

With the current decommissioned status of the MY site and the storage of the spent nuclear fuel in the ISFSI, an operational support center is no longer required to meet its original purpose of an assembly area for plant logistical support during an emergency. Therefore, the NRC concludes that MY is exempt from the requirement in 10 CFR Part 50, Appendix E, Section IV.E.8.a.(ii).

(4.2.15) 10 CFR Part 50, Appendix E, Section IV.E.8.b.

~~b. For a nuclear power reactor licensee's emergency operations facility required by paragraph 8.a of this section, either a facility located between 10 miles and 25 miles of the nuclear power reactor site(s), or a primary facility located less than 10 miles from the nuclear power reactor site(s) and a backup facility located between 10 miles and 25 miles of the nuclear power reactor site(s). An emergency operations facility may serve more than one nuclear power reactor site. A licensee desiring to locate an emergency operations facility more than 25 miles from a nuclear power reactor site shall request prior Commission approval by submitting an application for an amendment to its license. For an emergency operations facility located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site. Provisions for locating NRC and offsite responders closer to a nuclear power reactor site that is more than 25 miles from the emergency operations facility must include the following:~~

~~(1) Space for members of an NRC site team and Federal, State, and local responders;~~

~~(2) Additional space for conducting briefings with emergency response personnel;~~

~~(3) Communication with other licensee and offsite emergency response facilities;~~

~~(4) Access to plant data and radiological information; and~~

~~(5) Access to copying equipment and office supplies;~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.E.8.b. because, as explained in Section 4.2.13 above, MY is exempt from the requirement to have an EOF.

(4.2.16) 10 CFR Part 50, Appendix E, Section IV.E.8.c.

~~c. By June 20, 2012, for a nuclear power reactor licensee's emergency operations facility required by paragraph 8.a of this section, a facility having the following capabilities:~~

~~(1) The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves;~~

~~(2) The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves; and~~

~~(3) The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site; and~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.E.8.c. because, as explained in Section 4.2.13 above, MY is exempt from the requirement to have an EOF.

(4.2.17) 10 CFR Part 50, Appendix E, Section IV.E.8.d.

~~d. For nuclear power reactor licensees, an alternative facility (or facilities) that would be accessible even if the site is under threat of or experiencing hostile action, to function as a staging area for augmentation of emergency response staff and collectively having the following characteristics: the capability for communication with the emergency operations facility, control room, and plant security; the capability to perform offsite notifications; and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities cannot be safely accessed during hostile action. The requirements in this paragraph 8.d must be implemented no later than December 23, 2014, with the exception of the capability for staging emergency response organization personnel at the alternative facility (or facilities) and the capability for communications with the emergency operations facility, control room, and plant security, which must be implemented no later than June 20, 2012.~~

The staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.E.8.d. because, as explained in Section 4.2.1 above, MY is exempt from requirements in Appendix E related to a “hostile action.”

(4.2.18) 10 CFR Part 50, Appendix E, Section IV.E.8.e.

~~e. A licensee shall not be subject to the requirements of paragraph 8.b of this section for an existing emergency operations facility approved as of December 23, 2011;~~

The staff concludes that MY is exempt from the requirement in 10 CFR Part 50, Appendix E, Section IV.E.8.e. because, as explained in Section 4.2.13 above, MY is exempt from the requirement to have an EOF.

(4.2.19) 10 CFR Part 50, Appendix E, Section IV.E.9.c.

c. Provision for communications among the nuclear power reactor control room, the onsite technical support center~~, *and the near-site emergency operations facility; and among the nuclear facility, the principal State and local emergency operations centers, and the field assessment teams.*~~ [*1998 exemption*] Such communications systems shall be tested annually.

The 2011 EP Final Rule changed the provision by removing the term "near site" from 10 CFR Part 50, Appendix E, Section IV.E.9.c. Based on the staff's analysis in Section 4.2.13 above, the staff concludes that MY is exempt from the requirement, "and the emergency operations facility," of 10 CFR Part 50, Appendix E, Section IV.E.9.c.

(4.2.20) 10 CFR Part 50, Appendix E, Section IV.E.9.d.

> d. Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the onsite technical support center, ~~*and the near-site emergency operations facility,*~~ [*1998 exemption*] and the field assessment teams. Such communications shall be tested ~~*monthly*~~ [*1998 exemption*].

In 1998, the NRC exempted MYAPC from testing the communications monthly by increasing the frequency to quarterly. The 2011 EP Final Rule changed the provision by removing the term "near site" from 10 CFR Part 50, Appendix E, Section IV.E.9.d. Based on the staff's analysis in Section 4.2.13 above, the staff concludes that MY is exempt from the requirement, "and the emergency operations facility," of 10 CFR Part 50, Appendix E, Section IV.E.9.d.

(4.2.21) 10 CFR Part 50, Appendix E, Section IV.F.2.

> 2. The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, ~~*test the public notification system,*~~ [*1998 exemption*] ~~test the public alert and notification system~~, and ensure that emergency organization personnel are familiar with their duties.

The 2011 EP Final Rule changed Part 50, Appendix E, Section IV.F.2 by replacing the term "test the public notification system" with "test the public alert and notification system." MYAPC did not request an exemption from the new part of this provision because in 1998, the NRC granted MYAPC an exemption from the requirement to "test the public notification system." The staff concluded that the licensee's proposal to discontinue offsite emergency planning activities and reduce the scope of onsite emergency planning was acceptable in view of the greatly reduced offsite radiological consequences associated with the current state of the plant. See Section 4.1.2 above for further discussion of the basis for the 1998 exemption from offsite EP requirements. The fact that the EP Final Rule changed the description of the public notification system to be the "public alert and notification system" does not change the licensee's exemption from the requirement to test a notification system because the rule change was not a substantive change to the requirements of the notification system. The staff concludes that MY continues to be exempt from the requirement, "test the public alert and notification system," of 10 CFR Part 50, Appendix E, Section IV.F.2.

(4.2.22) 10 CFR Part 50, Appendix E, Section IV.F.2.a.

> a. ~~Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in a full participation exercise required by this paragraph 2.a.~~

The 2011 EP Final Rule revised Section IV.F.2.a to require nuclear power reactor licensees to submit scenarios for their onsite biennial exercises under 10 CFR 50.4. This requirement was

revised to enable the NRC to verify that licensees would implement in their exercise scenarios the requirements of Appendix E, Sections IV.F.2.i and IV.F.2.j, including “hostile action” and a variety of challenges to reduce preconditioning of responders.

In 1998, the NRC granted MYAPC an exemption from the requirement in 10 CFR Part 50, Appendix E, Section IV.F.2.a to conduct full participation exercises. In granting this exemption, the NRC relied on the factors and conclusions discussed in Section 4.1.2 above.

Because MYAPC does not have to conduct full participation exercises, it does not need to comply with the requirement that the exercise scenarios for those full participation exercises need to be submitted to the NRC. Based on these reasons and the analysis in Section 4.1.2, the staff concludes that MY is exempt from the requirement, “Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in a full participation exercise required by this paragraph 2.a,” in 10 CFR Part 50, Appendix E, Section IV.F.2.a.

(4.2.23) 10 CFR Part 50, Appendix E, Section IV.F.2.b.

b. Each licensee at at each site shall conduct a subsequent exercise of its onsite emergency plan every 2 years. ~~Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in an exercise required by this paragraph 2.b. *The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section.*~~ [*1998 exemption*] In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained[.] ~~*during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action recommendation development, protective action decision making, plant system repair and mitigative action implementation. During these drills, activation of all of the licensee's emergency response facilities (Technical Support Center (TSC), Operations Support Center (OSC), and the Emergency Operations Facility (EOF)) would not be necessary, licensees would have the opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff in all participating facilities would have the opportunity to resolve problems (success paths) rather than have controllers intervene, and the drills may focus on the onsite exercise training objectives.*~~ [*1998 exemption*]

The staff concludes that MY is exempt from the requirement, “Nuclear power reactor licensees shall submit exercise scenarios under 10 CFR 50.4 at least 60 days before use in an exercise required by this paragraph 2.b” of 10 CFR Part 50, Appendix E, IV. F.2.b based on the staff’s analysis in Sections 4.1.2 and 4.2.22 above.

(4.2.24) 10 CFR Part 50, Appendix E, Sections IV.F.2.c.(4) and (5)

~~(4) Conduct a hostile action exercise of its onsite emergency plan in each exercise cycle; and~~

~~(5) Participate in an offsite biennial full or partial participation hostile action exercise in alternating exercise cycles.~~

In 1998, the NRC granted MYAPC an exemption from the entirety of 10 CFR Part 50, Appendix E, Section IV.F.2.c. The NRC issued a Final Rule (72 FR 49352; August 28, 2007) that revised 10 CFR Part 50, Appendix E, Section IV.F.2.c to include additional requirements related to co-located licensees. The 2011 EP Final Rule further changed the provision by reorganizing the section and adding the requirements for hostile action exercises. MY is not a co-located licensee; therefore, Section IV.F.2.c.(4) and (5) do not apply to MY and MY does not need an exemption from the requirements in Section IV.F.2.c. that apply to co-located licensees.

(4.2.25) 10 CFR Part 50, Appendix E, Section IV.F.2.d.

~~d. Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in the ingestion pathway portion of exercises at least once every exercise cycle. In States with more than one nuclear power reactor plume exposure pathway EPZ, the State should rotate this participation from site to site. Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in a hostile action exercise at least once every cycle and should fully participate in one hostile action exercise by December 31, 2015. States with more than one nuclear power reactor plume exposure pathway EPZ should rotate this participation from site to site.~~

In 1998, the NRC granted MYAPC an exemption from 10 CFR Part 50, Appendix E, Section IV.F.2.d, "A State should fully participate in the ingestion pathway portion of exercise at least once every two years. In States with more than one site, the State should rotate this participation from site to site."

The 2011 EP Final Rule changed the provision to, "Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in the ingestion pathway portion of exercises at least once every exercise cycle. In States with more than one nuclear power reactor plume exposure pathway EPZ, the State should rotate this participation from site to site. Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in a hostile action exercise at least once every cycle and should fully participate in one hostile action exercise by December 31, 2015. States with more than one nuclear power reactor plume exposure pathway EPZ should rotate this participation from site to site."

MYAPC requested an exemption from the requirements to perform hostile action exercises. The staff concludes that MY continues to be exempt from the ingestion pathway portion of an exercise and is exempt from the hostile action exercise requirement in 10 CFR Part 50, Appendix E, Section IV.F.2.d because, as explained in Section 4.2.1 above, MY is exempt from requirements in Appendix E related to a "hostile action."

(4.2.26) 10 CFR Part 50, Appendix E, Section IV.F.2.i.

i. Licensees shall use drill and exercise scenarios that provide reasonable assurance that anticipatory responses will not result from preconditioning of participants. ~~Such scenarios for nuclear power reactor licensees must include a wide spectrum of radiological releases and events, including hostile action.~~ Exercise and drill scenarios as

appropriate must emphasize coordination among onsite and offsite response organizations.

In the SOC for the EP Final Rule (76 FR 72589), the NRC discussed the addition of a new Section IV.F.2.i to Appendix E to require all nuclear power reactor licensees to include hostile action in biennial evaluated exercises. The final rule also ensures that scenarios will be sufficiently varied by requiring the use of a wide spectrum of radiological releases and events to properly train responders to respond to events more realistic than those currently used in training, and to avoid preconditioning the responders to success with inappropriate anticipatory responses.

In the EP Final Rule, the NRC identified this requirement as specific for power reactor licensees. The staff considered the similarity between the MY facility and an NPR for the low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures. The results of analyses of design basis and hypothetical accident conditions evaluated for the MY ISFSI show that there is substantial design margin for safety to the public and on-site personnel. Unlike nuclear power plants, ISFSIs have a low risk of a radiological release or a wide spectrum of events at an ISFSI.

Also, as explained in Sections 4.1.2 and 4.2.1, the NRC staff concludes that MY is exempt from requirements in Appendix E related to offsite emergency planning activities and a hostile action, respectively. Therefore, the staff concludes that MY is exempt from the requirement, “Such scenarios for nuclear power reactor licensees must include a wide spectrum of radiological releases and events, including hostile action,” of 10 CFR Part 50, Appendix E, Section IV.F.2.i.

(4.2.27) 10 CFR Part 50, Appendix E, Section IV.F.2.j.

~~j. The exercises conducted under paragraph 2 of this section by nuclear power reactor licensees must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas of emergency response identified in paragraph 2.b of this section. Each exercise must provide the opportunity for the ERO to demonstrate key skills specific to emergency response duties in the control room, TSC, OSC, EOF, and joint information center. Additionally, in each eight calendar year exercise cycle, nuclear power reactor licensees shall vary the content of scenarios during exercises conducted under paragraph 2 of this section to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements: hostile action directed at the plant site, no radiological release or an unplanned minimal radiological release that does not require public protective actions, an initial classification of or rapid escalation to a Site Area Emergency or General Emergency, implementation of strategies, procedures, and guidance developed under § 50.54(hh)(2), and integration of offsite resources with onsite response. The licensee shall maintain a record of exercises conducted during each eight year exercise cycle that documents the content of scenarios used to comply with the requirements of this paragraph. Each licensee shall conduct a hostile action exercise for each of its sites no later than December 31, 2015. The first eight-year exercise cycle for a site will begin in the calendar year in which the first hostile action exercise is conducted. For a site licensed under Part 52, the first eight-year exercise cycle begins in the calendar year of the initial exercise required by Section IV.F.2.a.~~

In the SOC for the EP Final Rule (76 FR 72589), the NRC discussed the addition of a new Section IV.F.2.j to Appendix E to require all nuclear power reactor licensees to provide an opportunity for the emergency response organization (ERO) to demonstrate proficiency in response to a wide spectrum of scenarios, including a "hostile action" and a loss of large areas of the plant due to fire or explosion. It further provides that the ERO must demonstrate key skills specific to emergency response duties in the control room, TSC, OSC, EOF and joint information center.

In the EP Final Rule, the NRC identified this requirement as specific for nuclear power reactor licensees. As explained in Section 4.2.26 above, the NRC staff concludes that MY is exempt from requirements in Appendix E related to a wide spectrum of events, offsite emergency planning activities and a hostile action. Additionally, with the current conditions of the site, where only the ISFSI and its related support systems, structures, and components remain, there are no other facilities in which ERO personnel could demonstrate proficiency. Based on these reasons, the staff concludes that MY is exempt from the requirements in 10 CFR Part 50, Appendix E, Section IV.F.2.j.

(4.2.28) 10 CFR Part 50, Appendix E, Section IV.I.

~~By June 20, 2012, for nuclear power reactor licensees, a range of protective actions to protect onsite personnel during hostile action must be developed to ensure the continued ability of the licensee to safely shut down the reactor and perform the functions of the licensee's emergency plan.~~

The staff concludes that MY is exempt from the requirement in 10 CFR Part 50, Appendix E, Section IV.I. because, as explained in Section 4.2.1 above, MYAPC is exempt from requirements in Appendix E related to a "hostile action."

4.3 Exemption Conclusions

The NRC has found that MYAPC meets the criteria for an exemption in § 50.12. The Atomic Energy Act of 1954, as amended, and the Commission's regulations permit the Commission to grant exemptions from the regulations in 10 CFR Part 50. Granting exemptions is consistent with the authority provided to the Commission in the Atomic Energy Act of 1954, as amended. Therefore, the exemption is authorized by law.

As noted in Section 2.0, "Discussion," above, MYAPC's compliance with the EP requirements in effect before the effective date of the EP Final Rule demonstrated reasonable assurance of adequate protection of the public health and safety and common defense and security. In this SE, the NRC staff explains that MYAPC's implementation of its ISFSI emergency plan, with the exemptions, will continue to provide this reasonable assurance of adequate protection. Thus, granting the exemptions will not present an undue risk to public health or safety and is not inconsistent with the common defense and security.

For the Commission to grant an exemption, special circumstances must exist. Under § 50.12(a)(2)(ii), special circumstances are present when "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." These special circumstances exist here. The NRC has determined that MYAPC's compliance with the regulations described in this SE is not

necessary for the licensee to demonstrate that, under its emergency plan, there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Consequently, special circumstances are present because requiring MYAPC to comply with the regulations that the staff describes in this SE is not necessary to achieve the underlying purpose of the EP regulations.

5.0 EVIRONMENTAL ASSESSMENT (EA)

Identification of Proposed Action:

By letter dated June 8, 2012, MYAPC submitted an exemption request in accordance with 10 CFR 50.12 from specific EP requirements of 10 CFR 50.47 and Appendix E to 10 CFR Part 50 for MY. Specifically, the exemption would eliminate unnecessary requirements associated with offsite consequences, protective actions, hostile action and emergency facilities due to the current status of MY.

Need for the Proposed Action:

In accordance with 10 CFR 50.82, the 10 CFR Part 50 licensed area for MY has been reduced to a small area surrounding the ISFSI. In this condition, MY poses a significantly reduced risk to public health and safety from design basis accidents or credible beyond design basis accidents since these cannot result in radioactive releases which exceed EPA PAGS at the site boundary. Because of this reduced risk, compliance with all the requirements in 10 CFR 50.47 and 10 CFR Part 50, Appendix E is not appropriate. The requested exemption from portions of 10 CFR 50.47 and 10 CFR Part 50, Appendix E is needed to continue implementation of the MY ISFSI Emergency Plan that is appropriate for a stand-alone ISFSI and is commensurate with the reduced risk posed by the facility. The requested exemption will allow spent fuel to continue to be stored safely without imposing burdensome and costly new requirements that provide no increased safety benefit.

Environmental Impacts of the Proposed Action:

The NRC has determined that, given the continued implementation of the MY ISFSI emergency plan, with the exemptions noted in this SE, no credible events would result in doses to the public beyond the owner controlled area boundary that would exceed the EPA PAGs. Additionally, the staff has concluded that the MY ISFSI emergency plan, with the exemptions described in this SE, provides for an acceptable level of emergency preparedness at the MYAPC facility in its shutdown and defueled condition, and also provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the MYAPC facility. Based on these findings, the NRC concludes that tThere are no radiological environmental impacts due to granting the approval of the exemptions, the proposed action will not increase the probability or consequences of accidents, no changes are being made in the types or quantities of effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action. The proposed action does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological impacts associated with the proposed action. Based on the assessment above, the proposed action will not have a significant effect on the quality of the human environment.

Alternative to the Proposed Action:

Since there is no significant environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact are not evaluated. The alternative to the proposed action would be to deny approval of the exemption. This alternative would have the same environmental impact.

FINDING OF NO SIGNIFICANT IMPACT

The environmental impacts of the proposed action have been reviewed in accordance with the requirements set forth in 10 CFR Part 51. Based upon the EA, the Commission finds that the proposed action of granting an exemption will not significantly impact the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed exemption.

6.0 CONCLUSION

The NRC concludes that the licensee's request for an exemption from certain requirements of 10 CFR 50.47(b) and 10 CFR Part 50, Appendix E, Section IV as specified in the SE are acceptable in view of the greatly reduced offsite radiological consequences associated with the ISFSI.

The exemption request has been reviewed against the acceptance criteria included in 10 CFR 50.47, Appendix E to 10 CFR Part 50, 10 CFR 72.32 and Interim Staff Guidance – 16. The review considered the ISFSI and the low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures. These evaluations were supported by the previously documented licensee and staff accident analyses. The staff concludes that: the MY ISFSI Emergency Plan provides: (1) an adequate basis for an acceptable state of emergency preparedness; and (2) the Emergency Plan, in conjunction with arrangements made with offsite response agencies, provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the MYAPC facility.

The NRC has determined that pursuant to 10 CFR 50.12, the exemptions described in the SE are authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest, and special circumstances are present.

7.0 REFERENCES

1. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, "Maine Yankee Plant, Certifications of Permanent Cessation of Power Operation And Removal of Fuel From the Reactor," dated August 7, 1997, (ADAMS Legacy Accession No. 9708140225).

2. Letter from U.S. Nuclear Regulatory Commission to Maine Yankee Atomic Power Company, "Issuance of Amendment No. 172. To Facility Operating License No. DPR-36 – Maine Yankee Atomic Power Station (TAC No. M8000)," dated September 30, 2005, (ADAMS Accession No. ML052380223).

3. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, “Request For Exemption from Specific 10 CFR 50 Requirements," dated June 8, 2012, (ADAMS Accession No. ML12172A298).

4. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, “Defueled Emergency Plan and 10 CFR 50.54(q) - Exemption Request," dated November 6, 1997, (ADAMS Legacy Accession No. 9711130334).

5. Letter from U.S. Nuclear Regulatory Commission to Maine Yankee Atomic Power Company, “Exemption From Certain Requirements Of 10 CFR 50.54(q), 10 CFR 50.47(b) and (c), And Appendix E To 10 CFR Part 50 At Maine Yankee Atomic Power Station (TAC No. MA0069)," dated September 3, 1998, (ADAMS Legacy Accession No. 9809140214).

6. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, “Changes to the Maine Yankee Defueled Emergency Plan," dated August 28, 2002 (ADAMS Accession No. ML022550037).

7. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, “Changes to the Maine Yankee Defueled Emergency Plan," dated September 27, 2004, (ADAMS Accession No. ML042790408).

8. Letter from Maine Yankee Atomic Power Company to U.S. Nuclear Regulatory Commission, “Changes to the Maine Yankee ISFSI Emergency Plan under 50.54(q)," dated February 17, 2011 (ADAMS Accession No. ML110601310).

9. Spent Fuel Project Office Interim Staff Guidance – 16, “Emergency Planning,” dated June 14, 2000. (ADAMS Accession No. ML003724570).

10. NUREG-0696, “Functional Criteria for Emergency Response Facilities,” dated February 1981(ADAMS Accession No. ML051390358).

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May 2, 2013

SUBJECT: RESPONSE TO EXEMPTION REQUEST FOR PORTIONS OF TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* PART 50 APPENDIX E, AND TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* PART 50.47 FOR THE MAINE YANKEE ATOMIC POWER STATION (TAC NO. L24661)

Dear Mr. Connell:

This is in response to your letter dated June 8, 2012 (Agencywide Document Access and Management System (ADAMS) Accession No**.** ML12172A298), requesting an exemption from specific requirements of Section 50.47 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Emergency Plans," and 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."

The U.S. Nuclear Regulatory Commission (NRC) staff (staff) reviewed the exemption requests from Maine Yankee Atomic Power Station (MY). Based upon the enclosed staff evaluation, the staff determined the exemptions you requested can be granted to the extent the relevant regulations are applicable to MY.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the publicly available records component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions, please contact me at (301) 492-3300, or John Goshen of my staff, at (301) 492-3325.

Sincerely,

/RA/

Mark D. Lombard, Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 50-309, 72-30
TAC No.: L24661

Enclosure: As stated
cc: Maine Yankee Service List w/o Enclosure
DISTRIBUTION: SFST R/F MFerdas/RI ABurritt/RI RWharton
Close out TAC# L24661
ADAMS: ML13112A842
File location: G:\SFST\Maine Yankee\EP Rule Change Exemption Request\Maine Yankee exemption SE transmittal.docx.docx

OFC:	SFST	SFST	OGC-NLO	SFST	SFST	SFST
NAME:	JGoshen	WWheatley	HBenowitz	MSampson	AHsia	MLombard
DATE:	3/8/2013	3/ 13/2013	4 /2/2013	4/ 19 /2013	5/1/2013	5/2 /2013

OFFICIAL RECORD COPY

Maine Yankee Atomic Power Station
Service List

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