



July 24, 2014

10 CFR 50.90

SBK-L-14080

Docket No. 50-443

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

Seabrook Station

License Amendment Request 14-03

Changes to Technical Specification 3.3.3.1, Radiation Monitoring for Plant Operations

Pursuant to 10 CFR 50.90, NextEra Energy Seabrook, LLC (NextEra) is submitting License Amendment Request (LAR) 14-03 to revise the Seabrook Station Technical Specifications (TS). The proposed change modifies TS 3.3.3.1, Radiation Monitoring for Plant Operations, to eliminate duplicate requirements, resolve an inconsistency, and correct a deficiency.

The Enclosure to this letter provides NextEra's evaluation of the proposed changes. Attachment 1 to the enclosure provides markups of the TS showing the proposed changes. As discussed in the evaluation, the proposed changes do not involve a significant hazards consideration pursuant to 10 CFR 50.92, and there are no significant environmental impacts associated with the change.

No new commitments are made as a result of this change.

The Station Operation Review Committee has reviewed this LAR.

In accordance with 10 CFR 50.91, NextEra is notifying the State of New Hampshire of this LAR by transmitting a copy of this letter and enclosure to the designated State Official.

NextEra requests NRC review and approval of LAR 14-03 by August 1, 2015 and implementation within 60 days.

A001  
NRC

Should you have any questions regarding this letter, please contact Mr. Michael Ossing, Licensing Manager, at (603) 773-7512.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 24, 2014.

Sincerely,

NextEra Energy Seabrook, LLC



Dean Curtland  
Site Vice President

Enclosure: Evaluation of the Proposed Change

cc: NRC Region I Administrator  
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Enclosure to SBK-L-14080

NextEra Energy Seabrook's Evaluation of the Proposed Change

Enclosure

NextEra Energy Seabrook's Evaluation of the Proposed Change

Subject: Changes to Technical Specification 3.3.3.1, Radiation Monitoring for Plant Operations

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
  - 4.1 Applicable Regulatory Requirements/Criteria
  - 4.2 Significant Hazards Consideration
  - 4.3 Conclusion
- 5.0 ENVIRONMENTAL CONSIDERATION
- 6.0 REFERENCES

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Attachment 1 – Markup of Technical Specifications

## 1.0 SUMMARY DESCRIPTION

The proposed change modifies TS 3.3.3.1, Radiation Monitoring for Plant Operations, to eliminate duplicate requirements, resolve an inconsistency, and correct a deficiency. First, the change proposes to delete the containment post LOCA area monitor and the containment ventilation isolation on line purge monitor from TS 3.3.3.1 because these instruments are controlled under other Technical Specifications (TS). Second, the applicability of the manipulator crane area monitor is revised to be consistent with TS 3.9.4, Containment Building Penetrations. Finally, the change corrects a deficiency in the applicability of the control room air intake radiation monitors by adding a requirement for operability of the instruments during movement of irradiated fuel.

## 2.0 DETAILED DESCRIPTION

### 2.1 Proposed changes

The proposed changes include the following:

*TS Table 3.3-6, Radiation Monitoring Instrumentation for Plant Operations*

1. Delete Functional Unit 1.a, Containment Post LOCA Area Monitor.
2. Delete Functional Unit 2.a, On Line Purge Monitor.
3. Delete the table notation associated with the Alarm/Trip Setpoint for Functional Unit 2.a.
4. Add a table notation associated with Applicable Modes for Functional Units 5.a.1 and 5.a.2, Control Room East/West Air Intake Radiation Level:
  - \* All MODES and during movement of irradiated fuel.
5. Revise the table notation associated with the Applicable Modes for Functional Unit 2.b, Manipulator Crane Area Monitor, as shown below:
  - # During ~~CORE ALTERATIONS~~ or movements of *recently* irradiated fuel within the containment.

*TS Table 4.3-3. Radiation Monitoring Instrumentation for Plant Operations Surveillance Requirements*

1. Delete Functional Unit 1.a, Containment Post LOCA Area Monitor
2. Delete Functional Unit 2.a, On Line Purge Monitor.
3. Add a new table notation associated with the Modes for Which Surveillance is Required for Functional Units 5.a.1 and 5.a.2, Control Room East/West Air Intake Radiation Level:

\*\* All MODES and during movement of irradiated fuel.

4. Revise the table notation associated with the Modes for Which Surveillance is Required for Functional Unit 2.b, Manipulator Crane Area Monitor, as shown below:

# During ~~CORE ALTERATIONS~~ or movement of *recently* irradiated fuel within the containment.

**2.2 Conditions the proposed amendment is intended to resolve**

The containment post LOCA area monitor and the on line purge monitor are currently controlled by two separate TS. In addition to TS 3.3.3.1, TS 3.3.3.6, Accident Monitoring Instrumentation, establishes requirements for the containment post LOCA area monitor, and TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, provides requirements for the on line purge monitor. The proposed change establishes control of each instrument under a single TS rather than two TS. The change also resolves a discrepancy between TS 3.3.3.1 and TS 3.3.2 regarding the trip setpoint for the on line purge monitor.

The change to the applicability of the manipulator crane area monitor establishes consistency with TS 3.9.4, Containment Building Penetrations, which is applicable only during movement of recently irradiated fuel within containment.

The change to the applicability of the control room air intake radiation monitors corrects a TS deficiency. The change adds a requirement for operability of the radiation monitoring instrumentation during movement of irradiated fuel assemblies, consistent with the applicability of TS 3.7.6.1, Control Room Emergency Makeup Air and Filtration System.

## 3.0 TECHNICAL EVALUATION

### 3.1 Background

#### *Containment Post LOCA Area Monitor*

The containment post LOCA area monitors are provided to monitor containment conditions under accident situations and for use by the operators in determining the need to invoke the site emergency plan. These instruments are design Category 1 instruments required for use in determining the magnitude of the release of radioactive materials and continually assessing such releases in accordance with Regulatory Guide (RG) 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident [Reference 1].

#### *Containment Ventilation Isolation On Line Purge Monitor*

The containment on line purge (COP) system provides filtered and heated air for purging the containment area during normal operation. The COP system in conjunction with the containment structure recirculation filter system is designed to reduce the airborne activity levels in the containment below the limits specified in 10 CFR 20.

The COP system has inner and outer containment isolation valves in its supply and exhaust lines. Numerous signals, including automatic safety injection, manual containment spray actuation, manual phase "A" containment isolation, and high radiation initiate closure of the COP system isolation valves. The on line purge monitor measures the activity of the air exhausted through the system and isolates the COP lines on a high radiation condition. The on line purge monitor consists of two channels of safety-related radiation monitors supplied from Class 1E uninterruptible power supplies.

#### *Containment Ventilation Isolation Manipulator Crane Area Monitor*

The containment air purge (CAP) and heating system supplies ventilation air and heat to maintain tritium and ambient temperature within containment at acceptable levels during refueling. The purge system, operating in conjunction with the containment recirculation filter subsystem, will reduce the airborne activity level within the containment below the levels specified in 10 CFR 20 within 24 hours following reactor shutdown.

The containment air purge penetrations consist of a pipe sleeve that is flanged at each end. Attached to these flanges are a 36-inch, air-operated butterfly valve inside containment and a testable blind flange outside containment. Together with the pipe, the blind flanges form a part of the containment pressure boundary during plant Modes 1, 2, 3, and 4. During Modes 5 and 6, the blind flanges are replaced by spool pieces to configure the CAP system to perform its heating and ventilation functions. In the event of a fuel handling accident in containment, the redundant manipulator crane area radiation monitors initiate isolation of the CAP and COP systems on high radiation.

#### *Control Room Air Intake Radiation Monitors*

The control room ventilation system, which includes redundant emergency cleanup subsystems, prevents the buildup of airborne particulates and radioactive iodines in the control room complex during an accident. Two remote air intakes (east and west), with two radiation monitors in each intake, are provided to furnish makeup air to the control room complex. During normal plant operation, the makeup air system is aligned to deliver outside air to the control room from both remote intakes, and the emergency cleanup fans are idle with their discharge dampers closed. High radiation at either remote air intake actuates both emergency cleanup fans and trips the normal makeup air fans.

### **3.2 Evaluation**

#### **3.2.1 Proposed Change to Functional Unit 1.a - Containment Post LOCA Area Monitor**

TS 3.3.3.1 requires two operable channels of the containment post LOCA area radiation monitor in Modes 1 through 6. On the other hand, TS 3.3.3.6, Accident Monitoring Instrumentation, only requires operability of the monitor in Modes 1, 2, and 3. NextEra proposes to delete the monitor from TS 3.3.3.1 because TS 3.3.3.6 specifies the appropriate requirements for the monitor. Removing the containment post LOCA area radiation monitor from TS 3.3.3.1 will result in the following changes: (1) the monitor will be required to be operable in Modes 1 through 3, and (2) the monitor will not be subject to a quarterly surveillance requirement for a channel operational test.

Seabrook developed its list of accident monitoring instrumentation (AMI) using the guidance provided in RG 1.97, revision 3 (with certain exceptions) and in NUREG-0737, Clarification of TMI Action Plan Requirements [Reference 2].

The RG describes an acceptable method of complying with the regulatory requirements to provide instrumentation to monitor plant variables and systems during and following an accident. The AMI list includes the two containment area radiation monitors, which are design Category 1 instruments that monitor a RG 1.97, Type E variable (variables monitored as required for use in determining the magnitude of a release of radioactive materials and for continuously assessing such releases).

TS 3.3.3.6 specifies the requirements for the AMI instrumentation and has an applicability of Modes 1, 2, and 3. This applicability is consistent with the applicability of TS 3.3.3, PAM Instrumentation, in NUREG-1431, Standard Technical Specifications for Westinghouse Plants [Reference 3]. The basis for the applicability is that the variables monitored by the AMI are related to diagnosis and pre-planned actions to mitigate design basis accidents (DBAs). The DBAs are assumed to occur in Modes 1, 2, and 3. Plant conditions in Modes 4, 5, and 6 are such that the likelihood of an event that would require AMI instrumentation is low; therefore, the AMI instrumentation is not required to be operable in these Modes.

The Bases for Seabrook TS 3.3.3.1 discuss that operability of the radiation monitoring instrumentation for plant operations ensures that: (1) the associated action will be initiated when the radiation level monitored reaches its setpoint, (2) the specified coincidence logic is maintained, and (3) sufficient redundancy is maintained to permit a channel to be out of service for testing or maintenance. The radiation monitors for plant operations sense radiation levels and determine if predetermined limits are exceeded. If limits are exceeded, the system sends actuation signals to initiate alarms or automatic isolation action and actuation of emergency exhaust or ventilation systems.

The function of the containment post LOCA area radiation monitor is not aligned with the Bases of TS 3.3.3.1, which addresses radiation monitors required for plant operation. Instead, the containment post LOCA area radiation monitor is a post accident monitoring instrument that is more appropriately controlled under TS 3.3.3.6. This TS requires operability of the accident monitoring instrumentation that ensures sufficient information is available on selected plant parameters to monitor and assess plant variables following an accident. The current requirement to maintain operability of the monitor through Mode 6 in accordance with TS 3.3.3.1 is unnecessarily restrictive and extends well beyond the plant conditions for which AMI is necessary.

Deleting the containment post LOCA area radiation monitor from TS 3.3.3.1 will also remove the requirement to perform a quarterly channel operational test on the monitor. TS 3.3.3.6 requires a channel check of the instrument every 31 days and a channel calibration every 18 months. Consistent with NUREG-1431, these surveillance requirements demonstrate that the instrumentation is operable and capable of performing its function to provide information to monitor and assess containment radiation following an accident.

NextEra proposes to delete the containment post LOCA area radiation monitor from TS 3.3.3.1 because TS 3.3.3.6 specifies the appropriate requirements and Modes of applicability for this post-accident instrument. The proposed change also brings the Seabrook TS into closer alignment with the requirements in NUREG-1431.

3.2.2 Proposed Change to Functional Unit 2.a - Containment Ventilation Isolation On Line Purge Monitor

TS 3.3.3.1 and TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, provide requirements for the containment ventilation isolation on line purge monitor. With the exception of the instrument trip setpoints, the requirements for the monitor in both TS are essentially the same. The table below compares the requirements in TS 3.3.3.1 and TS 3.3.2 for the on line purge monitor.

TS Requirement for On Line Purge Monitor	TS 3.3.3.1 Functional Unit 2a On Line Purge Monitor	TS 3.3.2 Functional Unit 3.c.4 Containment On Line Purge Radioactivity - high
Total No. of Channels	---- (This table does not include a column for total number of channels)	2
Channels to trip	1	1
Minimum Channels operable	2	2
Applicable Modes	1,2,3,4	1,2,3,4
Action	Action 23 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment <i>ventilation isolation</i> valves are maintained closed.	Action 16 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment <i>purge supply and exhaust</i> valves are maintained closed.

<b>TS Requirement for On Line Purge Monitor</b>	<b>TS 3.3.3.1 Functional Unit 2a On Line Purge Monitor</b>	<b>TS 3.3.2 Functional Unit 3.c.4 Containment On Line Purge Radioactivity - high</b>
Surveillance Requirement - Frequency	Channel Check - S	Channel Check - S
	Channel Calibration - R	Channel Calibration - R
	Digital Channel Operational Test - Q	Analog Channel Operational Test- Q(2)  (2) A Digital Channel Operational Test will be performed on this instrumentation.
Trip Setpoint	<i>Two times background</i>	<i>&lt; 2 x background</i>

The proposed change deletes the on line purge monitor from TS 3.3.3.1 because TS 3.3.2 provides essentially the same requirements for the instrument with the exception of the trip setpoints. However, the setpoint specified in TS 3.3.2, which will be retained in the TS, is more conservative than the setpoint in TS 3.3.3.1 .

TS 3.3.3.1, Action 23 refers to containment ventilation isolation valves while Action 16 in TS 3.3.2 refers to the containment purge supply and exhaust valves; however, the two actions are referring to the same valves. The containment ventilation systems include the CAP and the COP systems. As previously discussed, the CAP containment penetrations are isolated by a blind flange in Modes 1 through 4, so the associated 36-inch valves do not perform a containment isolation function. The valves referenced in both actions are the four COP system containment isolation valves (COP-V1, V2, V3, and V4), the only containment ventilation system valves that perform a containment isolation function in Modes 1 through 4. The four COP valves are listed in Technical Requirement 6, Containment Isolation Valves, in the Seabrook Technical Requirements Manual.

With the exception of the minor difference in the trip setpoints, the change eliminates duplicate requirements. With regard to the trip setpoint, the proposed change is acceptable because it retains the more conservative setpoint of “less than two times background” and eliminates the setpoint of “two times background.” The proposed change will also reduce burden on the operators by eliminating the need to implement and document compliance with two separate TS where the requirements in both TS are essentially the same.

### 3.2.3 Proposed change to Functional Unit 2.b, Containment Ventilation Isolation Manipulator Crane Area Monitor

TS 3.3.3.1 requires operable manipulator crane area radiation monitors to initiate containment ventilation isolation in Mode 6 during core alterations or movement of irradiated fuel within containment. On the other hand, TS 3.9.4, Containment Building Penetrations, which requires the capability to automatically isolate the containment purge and exhaust system on a high radiation signal from the manipulator crane area monitors, applies only during movement of recently irradiated fuel within the containment.

In October 2003, Amendment 94 [Reference 4] revised Seabrook TS 3.9.4 by deleting “During Core Alteration” from the applicability of the TS and modifying the TS to apply only during movement of recently irradiated fuel assemblies. (Recently irradiated fuel assemblies are described in the TS Bases as fuel that has occupied part of a critical reactor core within the past 80 hours.) This change allows the movement of fuel that has decayed for greater than 80 hours while the containment equipment hatch is open based on the results of a fuel handling accident (FHA) analysis that show for an accident with the equipment hatch open after 80 hours decay time, the doses will remain within 10 CFR Part 100 and GDC 19 limits.

TS 3.3.3.1 currently requires operability of the instrumentation that initiates a containment ventilation isolation signal during conditions (core alternations or movement of irradiated fuel) for which automatic containment isolation is not required. No automatic isolation of the containment is assumed in the FHA, which occurs 80 hours following reactor shutdown, the earliest time when spent fuel would be first moved from the reactor vessel. Therefore, NextEra proposes to revise the applicability in TS 3.3.3.1 for the manipulator crane area monitor to apply only during movement of recently irradiated fuel. The proposed change is appropriate since TS 3.9.4 contains a surveillance requirement that verifies containment purge and exhaust isolation occurs on a high radiation signal from the manipulator crane radiation area monitor and this function is required only during movement of recently irradiated fuel. This change will resolve an inconsistency in the TS, eliminate the accompanying confusion that results from the inconsistency, and remove the requirement to unnecessarily maintain equipment operable in a Mode or other specified condition when it is not required to perform its function.

The proposed change is consistent with TSTF-51-A, Revise Containment Requirements During Handling Irradiated Fuel and Core Alterations, Revision 2

[Reference 5]; and TS 3.3.6, Containment Purge and Exhaust Isolation Instrumentation, in NUREG-1431, Standard Technical Specifications for Westinghouse Plants, Revision 4. In its request for license amendment 94 [Reference 6], which was based on TSTF-51, NextEra provided a FHA analysis that showed for an accident with the equipment hatch open after 80 hours decay time, the doses will remain within 10 CFR Part 100 and GDC 19 limits. Therefore, the proposed change is acceptable because containment isolation is only required to isolate FHAs involving recently irradiated fuel. The FHA involving non-recently irradiated fuel does not credit automatic containment isolation.

#### 3.2.4 Proposed Change to Functional Units 5.a.1 and 5.a.2, Control Room East/West Isolation Air Intake Radiation Level

TS 3.3.3.1 currently requires operability of the control room air intake radiation monitors in all Modes. NextEra proposes to revise the applicability for these monitors to include the condition of movement of irradiated fuel assemblies. This change establishes consistency between the applicability for the control room intake radiation monitors in TS 3.3.3.1 and the applicability of TS 3.7.6.1, Control Room Emergency Makeup Air and Filtration System (CREMAFS). License Amendment 119 [Reference 7] revised Seabrook TS 3.7.6.1 to extend the applicability to include the condition of movement of irradiated fuel assemblies.

The CREMAFS is credited for mitigating a fuel handling accident. The FHA analysis assumes that the control room ventilation system is initially operating in its normal mode providing unfiltered fresh air. After the start of the event, the control room is isolated due to high radiation in the control room ventilation system.

A FHA is postulated to occur either in containment or in the fuel storage building (FSB). Movement of irradiated fuel may take place in the FSB when the reactor is completely defueled, and consequently, in a condition outside the current applicability of "All Modes" for the control room air intake radiation monitors. Therefore, consistent with the FHA analysis assumptions, the proposed change establishes a requirement for operability of the radiation monitors during movement of irradiated fuel assemblies, which may occur in the FSB when all fuel has been removed from the reactor vessel (outside the applicability of "All Modes"). This modification corrects a TS deficiency and is a more restrictive

change because it adds a new condition necessitating operability of the radiation monitors that does not exist under current TS 3.3.3.1.

## 4.0 REGULATORY EVALUATION

### 4.1 Applicable Regulatory Requirements/Criteria

- Appendix A to Part 50—General Design Criteria for Nuclear Power Plants
  - *Criterion 13—Instrumentation and control* requires, in part, instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety, including those variables and systems that can affect the fission process, the integrity of the reactor core, the reactor coolant pressure boundary, and the containment and its associated systems.
  - *Criterion 19—Control room* states, in part, a control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions, including loss-of-coolant accidents. Adequate radiation protection shall be provided to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of the accident.
  - *Criterion 56—Primary containment isolation* establishes the requirements for lines that connect directly to the containment atmosphere and penetrate primary reactor containment.
  - *Criterion 64—Monitoring radioactivity releases* requires means for monitoring the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluids, effluent discharge paths, and the plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents.
- 10 CFR 50.36, Technical Specifications, establishes the criteria for the contents of the technical specifications.

- 10 CFR 50.67, Accident Source Term, establishes the dose limits for design basis accidents.

The proposed changes are compliant with these regulatory requirements.

#### **4.2 Significant Hazards Consideration**

The proposed changes modify TS 3.3.3.1, Radiation Monitoring for Plant Operations, to eliminate duplicate requirements, resolve an inconsistency, and correct a deficiency. The changes proposes to (1) delete the post LOCA area monitor and the on line purge monitor from TS 3.3.3.1, (2) revise the applicability of the manipulator crane area monitor to be consistent with TS 3.9.4, Containment Building Penetrations, and (3) add a requirement for operability of the control room air intake radiation monitors during movement of irradiated fuel.

In accordance with 10 CFR 50.92, NextEra has concluded that the proposed changes do not involve a significant hazards consideration (SHC). The basis for the conclusion that the proposed change does not involve a SHC is as follows:

- 1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?*

Response: No

The instruments involved with the proposed changes to the technical specifications (TS) are not initiators of any accidents previously evaluated, and the probability and consequences of accidents previously evaluated are unaffected by the proposed changes. There is no change to any equipment response or accident scenario, and the changes impose no additional challenges to fission product barrier integrity. The proposed changes do not alter the design, function, operation, or configuration of any plant structure, system, or component (SSC). As a result, the outcomes of accidents previously evaluated are unaffected. The proposed changes modify the TS to eliminate duplicate requirements, resolve an inconsistency, and correct a deficiency. Therefore, the proposed changes do not result in a significant increase in the probability or consequences of an accident previously evaluated.

2. *Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?*

Response: No.

No new accident scenarios, failure mechanisms, or limiting single failures are introduced as a result of the proposed changes. The changes do not challenge the integrity or performance of any safety-related systems. No plant equipment is installed or removed, and the changes do not alter the design, physical configuration, or method of operation of any plant SSC. No physical changes are made to the plant, so no new causal mechanisms are introduced. Therefore, the proposed changes to the TS do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. *Does the proposed amendment involve a significant reduction in a margin of safety?*

Response: No.

The ability of any operable SSC to perform its designated safety function is unaffected by the proposed changes. The proposed changes do not alter any safety analyses assumptions, safety limits, limiting safety system settings, or method of operating the plant. The changes do not adversely impact plant operating margins or the reliability of equipment credited in the safety analyses. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, NextEra concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(b), and, accordingly, a finding of “no significant hazards consideration” is justified.

### **4.3 Conclusions**

Based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

## **5.0 ENVIRONMENTAL CONSIDERATION**

NextEra has evaluated the proposed amendment for environmental considerations. The review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set for in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

## **6.0 REFERENCES**

1. Regulatory Guide 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Revision 3, May 1983
2. NUREG-0737, Clarification of TMI Acton Plan Requirements, November 1980
3. NUREG-1431, Standard Technical Specifications - Westinghouse Plants, Revision 4
4. NRC letter "Seabrook Station Unit No. 1 - Issuance of Amendment Re: Changes to Technical Specifications Associated with Containment Building Penetrations (TAC No. MB 6611)," October 3, 2003 (ML 032740512)
5. Technical Specifications Task Force Traveler TSTF-51-A, "Revise Containment Requirements During Handling Irradiated Fuel and Core Alterations," Revision 2
6. Seabrook Station letter NYN-02089, "License Amendment Request 02-07, Changes to TS 3.9.4 Containment Building Penetrations," October 11, 2002 (ML 022940473)
7. NRC letter "Seabrook Station Unit No. 1 - Issuance of Amendment Re: Control Room Habitability (TAC No. MD6099)," July 30, 2008

Attachment 1

Markup of Proposed Technical Specifications Changes

## INSTRUMENTATION

### 3/4.3.3 MONITORING INSTRUMENTATION

#### RADIATION MONITORING FOR PLANT OPERATIONS

##### LIMITING CONDITION FOR OPERATION

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3.3.3.1 The radiation monitoring instrumentation channels for plant operations shown in Table 3.3-6 shall be OPERABLE with their Alarm/Trip Setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in Table 3.3-6, adjust the Setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels for plant operations inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specification 3.0.3 are not applicable.

##### SURVEILLANCE REQUIREMENTS

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4.3.3.1 Each radiation monitoring instrumentation channel for plant operations shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and DIGITAL CHANNEL OPERATIONAL TEST for the MODES and at the frequencies shown in Table 4.3-3.

**TABLE 3.3-6  
RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS**

<u>FUNCTIONAL UNIT</u>	<u>CHANNELS TO TRIP/ALARM</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. <del>Containment</del> ← Deleted					
a. <del>Containment Post LOCA Area Monitor</del>	4	2	All	≤ 10 R/h	27
2. Containment Ventilation Isolation ← Deleted					
a. <del>On-Line Purge Monitor</del>	4	2	1, 2, 3, 4	*	23
b. Manipulator Crane Area Monitor	1	2	6#	**	23
3. Main Steam Line	1/steam line	1/steam line	1, 2, 3, 4	N.A.	27
4. Fuel Storage Pool Areas					
a. Fuel Storage Building Exhaust Monitor	N.A.	1	***	****	25
5. Control Room Isolation					
a. Air Intake-Radiation Level					
1) East Air Intake	1/intake	2/intake	All	****	24
2) West Air Intake	1/intake	2/intake	All	****	24
6. Primary Component Cooling Water					
a. Loop A	1	1	All	≤ 2 x Background	28
b. Loop B	1	1	All	≤ 2 x Background	28

All MODES and during movement of irradiated fuel.

**TABLE NOTATIONS**

- \* Two times background; purge rate will be verified to ensure compliance with ODCM Control C.7.1.1 requirements
- \*\* Two times background or 15 mR/hr, whichever is greater.
- \*\*\* With irradiated fuel in the fuel storage pool areas.
- \*\*\*\* Two times background or 100 CPM, whichever is greater.
- # During CORE ALTERATIONS or movements of irradiated fuel within the containment.

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 23 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment ventilation isolation valves are maintained closed.

ACTION 24 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Emergency Ventilation System in the recirculation mode of operation.

ACTION 25 - With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas.

ACTION 27 - With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

- 1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or
- 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.8.2 within 14 days following the event outlining the actions taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ACTION 28 - With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirement, collect grab samples daily from the Primary Component Cooling Water System and the Service Water System and analyze the radioactivity until the inoperable Channel(s) is restored to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>DIGITAL CHANNEL OPERATIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. <del>Containment</del> <span style="border: 1px solid black; padding: 2px;">Deleted</span>				
a. <del>Containment Post-LOCA Area Monitor</del>	S	R	Q	All
2. Containment Ventilation Isolation <span style="border: 1px solid black; padding: 2px;">Deleted</span>				
a. <del>On-Line Purge Monitor</del>	S	R	Q	<del>1, 2, 3, 4</del>
b. Manipulator Crane Area Monitor	S	R	Q	6#
3. Main Steam Line	S	R	Q	1, 2, 3, 4
4. Fuel Storage Pool Areas				
a. Radioactivity-High-Gaseous Radioactivity	S	R	Q	*
5. Control Room Isolation				
a. Air Intake Radiation Level				
1) East Air Intake	S	R	Q	All
2) West Air Intake	S	R	Q	All
6. Primary Component Cooling Water				
a. Loop A	S	R	Q	All
b. Loop B	S	R	Q	All

recently

TABLE NOTATIONS

\* With irradiated fuel in the fuel storage pool areas.

# During ~~CORE ALTERATIONS~~ or movement of irradiated fuel within the containment.

\*\* All MODES and during movement of irradiated fuel.