



January 27, 2010

NRC 2010-0013
10 CFR 50.90

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

Point Beach Nuclear Plant, Units 1 and 2
Dockets No. 50-266 and 50-301
Renewed License Nos. DPR-24 and DPR-27

License Amendment Request 264
Diesel Fuel Oil Storage Requirements

Pursuant to 10 CFR 50.90, NextEra Energy Point Beach, LLC (NextEra), hereby requests an amendment to Renewed Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBNP) Units 1 and 2. The proposed amendment consists of changes to Technical Specification (TS), 3.8.3, Diesel Fuel Oil and Starting Air. The proposed change also revises instrument indicator loop uncertainty values to account for unusable volumes.

The license amendment proposes that Limiting Condition of Operation (LCO) 3.8.3 Condition A be revised to specify increased minimum diesel fuel oil storage volume requirements for the emergency diesel generators (EDGs). The changes assure that the required amount of diesel fuel is maintained for two EDGs to start upon demand, draw fuel from a common tank, load to their respective loading limits, and continue to operate for a minimum of 48 hours to satisfy license basis requirements.

New LCO.3.8.3 Condition B is proposed to ensure that the required amount of diesel fuel is maintained in the common storage tank to support operation of a single EDG for 48 hours.

As a result of the above proposed changes, Surveillance Requirement (SR) 3.8.3.1 is revised to verify that each fuel oil storage tank contains the required amount of diesel fuel to support operation of the EDGs.

Enclosure 1 provides a description of the proposed TS changes. Enclosure 2 provides a mark-up of the proposed TS changes. Enclosure 3 provides the proposed TS Bases. The TS Bases are being provided for information. NextEra is not requesting approval of the TS Bases.

Approval of the proposed amendment is requested by February 1, 2011. NextEra will implement the amendment within 60 days of Commission approval.

The PBNP Plant Operations Review Committee has reviewed the proposed license amendment request.

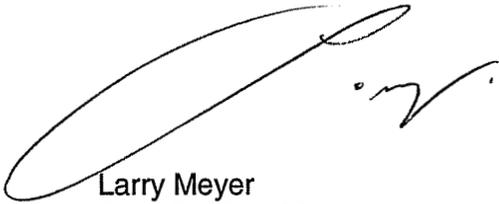
In accordance with 10 CFR 50.91, a copy of this application with enclosures is being provided to the designated Wisconsin Official.

This letter contains no new regulatory commitments and no revisions to existing regulatory commitments.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on January 27, 2010.

Very truly yours,

NextEra Energy Point Beach, LLC

A handwritten signature in black ink, appearing to read 'Larry Meyer', is written over a large, faint, oval-shaped watermark or background mark.

Larry Meyer
Site Vice President

Enclosures

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
PSCW

ENCLOSURE 1

**NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2**

**LICENSE AMENDMENT REQUEST 264
DIESEL FUEL OIL STORAGE REQUIREMENTS**

DESCRIPTION AND EVALUATION OF CHANGES

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 Applicable Regulatory Requirements/Criteria
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1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Facility Operating Licenses DPR-24 and DPR-27, for Point Beach Nuclear Plant (PBNP), Units 1 and 2, respectively.

The proposed changes would revise Technical Specification (TS) 3.8.3, "Diesel Fuel Oil and Starting Air." The changes increase the minimum required volume of diesel fuel oil stored in the emergency diesel generator (EDG) fuel oil storage tanks to assure that there is sufficient fuel oil to support operation of the EDGs for 48 hours to meet license basis requirements. The revised requirements also incorporate instrument indicator loop uncertainty values to account for unusable volumes.

Limiting Condition of Operation (LCO) 3.8.3 Condition A is revised to assure that following receipt of an undervoltage signal from the associated 4.16 kV train in either unit, or a safety injection signal, the required amount of diesel fuel is maintained for two EDGs to start upon demand, draw fuel from a common tank, load to their respective loading limits, and continue to operate for a minimum of 48 hours. The Required Actions are revised to assure that the minimum amount of diesel fuel is available to support Condition A. The Completion Time for Required Action A.2 is revised to "1 Hour."

New LCO 3.8.3 Condition B is proposed to ensure that the required amount of diesel fuel is maintained in the common storage tank to support operation of a single EDG for 48 hours. A completion time of "immediately" is specified.

SR 3.8.3.1 is revised to address the required surveillance for the proposed changes.

The proposed amendments would be implemented within 60 days following Commission approval.

2.0 DETAILED DESCRIPTION

The changes proposed via this license amendment request are:

1. LCO 3.8.3 Condition A is revised from "One or more standby emergency power sources with < 11,000 gal in storage tank" to:

"Two standby emergency power sources with < 24,000 gal in a common storage tank."

Required Action A.1 is revised from "Declare associated standby emergency power source(s) inoperable" to:

- A.1 "Declare one of the two associated standby emergency power sources inoperable."

AND

- A.2 "Take actions to prevent the inoperable standby emergency power source from automatically starting and loading."

The Completion Time of "Immediately" remains the same for Required Action A.1

A Completion Time of "1 Hour" is specified to accomplish Required Action A.2. A completion time of 1 Hour is reasonable because the EDG fuel oil day tanks capacity exceeds the amount of fuel that would be consumed by an EDG in 1 Hour and this volume is not credited toward the EDG's ability to sustain a fully loaded 48-hour run.

2. New Condition B is added to state:

"One or more standby emergency power source(s) with < 13,000 gal in a common storage tank."

Required Action B.1 is added to state:

"Declare associated standby emergency power source(s) inoperable.

The Completion Time is:

"Immediately."

3. Existing Conditions B through E and Required Actions B.1 through E.1 are renumbered as C through F and C.1 through F.1, respectively, to accommodate inclusion of New Condition B and Required Action B.1. References to Condition B or C within existing Condition E are also revised to reflect this renumbering and will become Conditions C or D, respectively.

4. Surveillance Requirement (SR) 3.8.3.1, which states "Verify each fuel oil storage tank contains > 11,000 gal of fuel" is revised to state:

"Verify each fuel oil storage tank contains \geq 24,000 gal of fuel."

The Frequency of 31 days is not changed.

3. TECHNICAL EVALUATION

The standby power supply for PBNP Units 1 and 2 consists of four shared EDGs divided into two trains, Train "A" and Train "B." The two Train A EDGs, G-01 and G-02, are normally aligned as standby emergency power sources to Unit 1 and Unit 2 4160 V buses 1A-05 and 2A-05, respectively. The Train B EDGs, G-03 and G-04, are normally aligned as standby emergency power to Unit 1 and Unit 2, 4160 V buses 1A-06 and 2A-06, respectively. Both EDGs in each train can be cross-connected to provide power to alternate buses if one EDG is out of service.

There are two underground fuel oil storage tanks (FOSTs). Each FOST has a capacity of 35,000 gallons. Fuel can be transferred from one underground FOST to the other via a transfer pump, and manual cross-connect valves. The manual cross-connect valves are normally maintained in the closed position. The EDGs are described in PBNP Final Safety Analysis Report (FSAR) Section 8.3.1.1.4. The EDG fuel oil storage and transfer system is described in PBNP FSAR Section 8.8.3.

Each FOST is required to contain a sufficient volume of stored fuel oil to operate the associated EDGs for a period of 48 hours at rated load. This requirement is expressed as minimum FOST level limits. The basis of these tank level limits is to provide sufficient fuel for operation with the most limiting time dependent load profile over a period of 48 hours. The current minimum TS required volume of $\geq 11,000$ gallons in each FOST only provides sufficient fuel for one EDG to operate for 48 hours.

Existing LCO 3.8.3 Condition A requires that FOST contain $\geq 11,000$ gallons when an associated standby emergency power source is required to be OPERABLE. Existing SR 3.8.3.1 requires that each EDG fuel oil storage tank be verified every 31 days to contain greater than or equal to 11,000 gallons of diesel fuel oil. This requirement is based on continuous operation of the associated EDG at rated load.

The NRC conducted a component design basis inspection of PBNP Units 1 and 2 during 2008 (Reference 1). During this inspection, it was identified that current TS LCO 3.8.3 Condition A FOST volume requirements accounted for one EDG to start following receipt of an undervoltage signal to start, load to the associated bus, and to operate at rated load for 48 hours.

An Unresolved Issue was documented in Reference (1) that the PBNP EDG fuel oil calculation did not consider the most limiting condition of operation of two EDGs being required to start and operate for a maximum of 48 hours. This issue was subsequently closed in 2009 (Reference 2) to a green non-cited violation.

The required diesel fuel volumes have been re-calculated for two EDGs in either Train A or Train B, starting, drawing fuel from a common fuel oil storage tank and continuing to operate for 48 hours at the most conservative analyzed EDG loading to satisfy license basis requirements. The required amount of diesel fuel is calculated in gallons, and an allowance for instrument Total Loop Error (TLE) is added to determine the required tank level limit. The methodology of calculating the instrument TLE is in accordance with Part I of ISA S67.04 (Reference 3). The instrument loop uncertainty was determined using the Regulatory Guide (RG) 1.105, Setpoint for Safety-Related Instrumentation (Reference 4) square root of the sum of the squares method of combining instrument loop uncertainty values to determine the overall indication loop uncertainty. This calculation was performed in accordance with ANSI/ANS 59.51, Fuel Oil Systems for Emergency Diesel Generators (Reference 5).

In addition, the current TS 3.8.3 fuel oil storage requirements did not incorporate instrument indicator loop uncertainty values to account for unusable volume. The revised calculation now accounts for this condition.

Based on the revised calculation, the value for the required fuel oil volume given in LCO 3.8.3 Condition A must be increased from $\geq 11,000$ gallons to $\geq 24,000$ gallons to support operation of two EDGs at rated load. New Condition B provides the minimum required fuel oil volume to support operation of a single EDG in Train A or Train B.

New Required Action A.2 supports operation of one EDG with the FOST at $< 24,000$ gallons. Required Action A.2 requires steps to be taken within 1 Hour to prevent the inoperable EDG from automatically starting and loading. A 1-Hour Completion Time is allowed to complete the actions since the EDG fuel oil day tanks each hold more than 1-hour of fuel, and this fuel inventory is not credited toward the ability of an EDG to sustain a 48-hour fully loaded run.

Revision of LCO Condition A requires SR 3.8.3.1 to be revised accordingly. The frequency of 31 days remains unchanged.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

PBNP was designed and constructed to comply with the intent of the draft AEC General Design Criteria (GDC) for Nuclear Power Plant Construction Permits, as proposed on July 10, 1967 (ML003674718). PBNP was licensed prior to the 1971 publication of Appendix A, General Design Criteria for Nuclear Power Plants, to 10 CFR 50. As such PBNP was not licensed to 10 CFR 50, Appendix A.

The origin of the PBNP GDCs relative to the Atomic Energy Commission proposed GDC is discussed in FSAR Section 1.3.

PBNP GDC 4, GDC 19 and GDC 39, are comparable to Appendix A GDC 5, Sharing of Structures, Systems and Components, GDC 17, Electric Power Systems, and GDC 20, Protection System Functions, respectively. Therefore, the applicable regulatory requirements are:

- PBNP GDC 4, "Sharing of Systems," states,

"Reactor facilities may share systems or components if it can be shown that such sharing will not result in undue risk to the health and safety of the public."
- PBNP GDC 19, "Protection System Reliability," states,

"Protection systems shall be designed for high functional reliability and inservice testability necessary to avoid undue risk to the health and safety of the public."
- PBNP GDC 39, "Emergency Power," states,

"An emergency power source shall be provided and designed with adequate independency, redundancy, capacity, and testability to permit the functioning of the engineered safety features and protection systems required to avoid undue risk to the health and safety of the public. This power source shall provide this capacity assuming a failure of a single active component."

Regulatory Guide (RG) 1.137, Fuel-Oil Systems For Standby Diesel Generators, (Reference 6) endorsed ANSI N 195-1976, Fuel Oil Systems for Standby Diesel Generators (Reference 7) as providing an acceptable method for complying with the pertinent requirements of GDC 17, subject to some clarifications and additional requirements, regarding diesel fuel oil systems for standby diesel generators and assurance of adequate diesel fuel oil quality. RG 1.137 is an existing reference for TS Bases 3.8.3.

ANSI/ANS 59.51 (Reference 5), provides guidance for calculating storage requirements, and was used in the preparation of PBNP calculations to support this change. ANSI N 195-1976 (Reference 7) is an existing reference for TS Bases 3.8.3.

Following approval of this proposed amendment, the minimum amount of stored diesel fuel when the associated standby emergency power source is required to be OPERABLE is increased from $\geq 11,000$ gallons to $\geq 24,000$ gallons for two EDGs and $\geq 13,000$ gallons for one EDG.

4.2 Significant Hazards Consideration

NextEra has evaluated whether or not a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.92, Issuance of Amendment, as discussed below.

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

Response: No.

This proposed change increases the minimum required amount of stored diesel fuel in the associated common fuel oil storage tank for two standby emergency power sources to start, load to their respective loading limits and to operate continuously up to a maximum of 48 hours. An increase in the minimum required fuel oil volume required in the fuel oil storage tanks does not increase the probability or consequences of an accident previously evaluated.

LCO 3.8.3 Condition A, currently requires that one or more standby emergency power sources have $\geq 11,000$ gallons of fuel when the associated EDG is declared operable. The proposed change increases the amount of stored fuel to $\geq 24,000$ gallons for two standby EDGs. It further adds new Required Action A.2 if the FOST stored capacity falls below the minimum required values. The proposed change also accounts for instrument indicator loop uncertainty values for unusable volume.

New LCO Condition B. addresses the case of one EDG operating in either Train "A" or Train "B." The new condition specifies that the minimum volume of diesel fuel required to support continued operation of a single EDG for 48 hours at rated load is $\geq 13,000$ gallons. This proposed change also accounts for instrument indicator loop uncertainty values for unusable volume.

SR 3.8.3.1 is revised to reflect the increased amount of diesel fuel required to be maintained to support operation of the EDGs following recalculation of required values.

Following implementation of this proposed change, there will be no change in the ability of the EDGs to supply maximum post-accident load demands for 48 hours. The proposed minimum volume of fuel, $\geq 24,000$ gallons for two EDGs and $\geq 13,000$ gallons for one EDG per train, ensures that a 48-hour supply of fuel is available when the associated standby emergency power source is required to be operable.

Therefore, the proposed change does not involve 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.

The EDGs and the associated support systems, such as the fuel oil storage and transfer systems, are designed to mitigate accidents and are not accident initiators. Following this change, the EDGs will continue to supply the required maximum post-accident load demand. The current 48-hour fuel supply requirements will be maintained following this change. The new required fuel oil volumes are within the capacities of the fuel oil storage tanks.

Therefore, this proposed change does 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.

There are two underground fuel oil storage tanks on site. Each tank has a capacity of approximately 35,000 gallons and each common fuel oil tank supports one EDG train. Fuel can be manually transferred from one tank to another via a cross-connect valve. Sufficient fuel is maintained between the two tanks to allow one EDG to operate continuously at the required load for seven (7) days. At the proposed *minimum required level*, which is $\geq 24,000$ gallons in the common fuel oil storage tank for two standby emergency power sources, one tank could provide enough fuel for two EDGs in either Train A or Train B to continue operation for greater than 48 hours. At the proposed minimum required level, which is $\geq 13,000$ gallons in each fuel oil storage tank, one tank could provide enough fuel for one EDG in Train A and Train B to continue operation for greater than 48 hours.

Therefore, the proposed change does not involve a significant reduction in a 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(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.3 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operating in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulation, and (3) the issuances of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

The Plant Operations Review Committee has reviewed this proposed amendment and concurs with this conclusion.

5.0 ENVIRONMENTAL CONSIDERATION

A 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 a 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 forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. NRC Inspection Reports 05000266/2008009 and 05000301/2008009 (DRS), dated September 8, 2008, Point Beach Nuclear Plant, Units 1 and 2 Component Design Basis Inspection (CDBI) Report (ML082520769).
2. NRC Inspection Reports 05000266/2009003; 05000301/2009003; dated August 11, 2009, Point Beach Nuclear Plant, Units 1 and 2, NRC Integrated Inspection Report (ML092230751).
3. Part I, ISA -S67.04-1994, Setpoints for Nuclear Safety-Related Instrumentation.
4. RG 1.105, Setpoint for Safety-Related Instrumentation, Revision 3, dated December 1999.
5. ANSI/ANS 59.51-1989, Fuel Oil Systems for Emergency Diesel Generators.
6. Regulatory Guide (RG) 1.137, Revision 1, October 1979.
7. ANSI N 195-1976, Fuel Oil Systems for Standby Diesel Generators, dated April 12, 1976.

ENCLOSURE 2

**NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2**

**LICENSE AMENDMENT REQUEST 264
DIESEL FUEL OIL STORAGE REQUIREMENTS**

**PROPOSED TECHNICAL SPECIFICATION CHANGES
(MARKUP COPY)**

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil and Starting Air

LCO 3.8.3 Stored diesel fuel oil shall be within limits and starting air subsystem shall be OPERABLE for each required standby emergency power source.

APPLICABILITY: When associated standby emergency power source is required to be OPERABLE.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each standby emergency power source.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. <u>One or more Two</u> standby emergency power sources with < 44 <u>24,000</u> gal in a <u>common</u> storage tank.	A.1 Declare <u>one of the two</u> associated standby emergency power source(s) inoperable.	Immediately
	<u>AND</u> A.2 <u>Take actions to prevent the inoperable standby emergency power source from automatically starting and loading</u>	<u>1 Hour</u>
B. <u>One or more standby emergency power source(s) with < 13,000 gal in a common storage tank.</u>	B.1 <u>Declare associated standby emergency power source(s) inoperable.</u>	<u>Immediately</u>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p><u>BC</u>. One or more standby emergency power sources with stored fuel oil total particulates not within limit.</p>	<p><u>BC.1</u> Restore fuel oil total particulates within limit.</p>	<p>7 days</p>
<p><u>CD</u> One or more standby emergency power sources with new fuel oil properties not within limits.</p>	<p><u>CD.1</u> Restore stored fuel oil properties to within limits.</p>	<p>30 days</p>
<p><u>DE</u>. One or more standby emergency power sources with inoperable starting air system(s).</p>	<p><u>DE.1</u> Declare associated standby emergency power source(s) inoperable.</p>	<p>Immediately</p>
<p><u>EE</u>. Required Action and associated Completion Time of Condition <u>BC</u> or <u>CD</u> not met.</p> <p><u>OR</u></p> <p>One or more standby emergency power sources' diesel fuel oil not within limits for reasons other than Condition <u>BC</u> or <u>CD</u>.</p>	<p><u>EE.1</u> Declare associated standby emergency power source(s) inoperable.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains $\geq 4424,000$ gal of fuel.	31 days
SR 3.8.3.2	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.3	Verify each standby emergency power source air start bottle bank pressure is ≥ 165 psig.	31 days
SR 3.8.3.4	Check for and remove accumulated water from each fuel oil storage tank.	92 days

ENCLOSURE 3

**NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2**

**LICENSE AMENDMENT REQUEST 264
FUEL OIL STORAGE REQUIREMENTS**

**PROPOSED TECHNICAL SPECIFICATION BASES CHANGES
(FOR INFORMATION ONLY)**

BASES

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.3 Diesel Fuel Oil and Starting Air

BASES

BACKGROUND

There are two underground fuel oil storage tanks on site (T-175A/B). Each tank has a capacity of approximately 35,000 gallons. Each tank supplies two emergency diesel generators. Sufficient fuel is maintained between the two tanks to allow one diesel to operate continuously at the required load for 7 days (Ref. 1). With 13,000 gallons indicated level in a tank, there is sufficient fuel. ~~At minimum required level, which is 11,000 gallons in each emergency diesel fuel oil storage tank, one tank could provide enough fuel for an~~ to support fully loaded operation of a single emergency diesel generator to operate for over 48 hours. With 24,000 gallons of indicated level in a tank, there is sufficient fuel to support fully loaded operation of two emergency diesel generators for over 48 hours. Actual fuel consumption requirements are approximately 10,680 gallons per diesel engine. The differences in storage requirements between a single diesel generator and two diesel generators are due to the application of instrument uncertainties and rounding up to the next whole thousand gallons of storage capacity.

The onsite fuel oil capacity is sufficient to operate the standby emergency power sources for longer than the time to replenish the onsite supply from outside sources.

Fuel oil is transferred from storage tank to day tank by either of two transfer pumps associated with each storage tank. Redundancy of pumps and piping precludes the failure of one pump, or the rupture of any pipe, valve or tank to result in the loss of more than one train of standby emergency power sources. The Train A day tanks are normally split and the Train B day tanks are normally split, but can be cross-connected allowing either tank to supply either diesel generator in the same Train.

For proper operation of the standby emergency power sources, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide 1.137 (Ref. 2) addresses the recommended fuel oil practices as supplemented by ANSI N195 (Ref. 3). The fuel oil properties governed by these SRs are the water and sediment content, the kinematic viscosity, specific gravity (or API gravity), and impurity level.

BASES

BACKGROUND
(continued)

Each standby emergency power source as an air start system capable of storing sufficient air to roll the associated diesel generator up to starting speed fast enough to complete its starting cycle and be up to final speed and voltage within 10 seconds from receipt to start signal.

The air start system for each standby emergency power source consists of two separate and redundant starting air banks, each capable of five successive start attempts without recharging.

APPLICABLE
SAFETY ANALYSES

The initial conditions of Design Basis Accident (DBA) and transient analyses in the FSAR, Chapter 14 (Ref. 4), assume Engineered Safety Feature (ESF) systems are OPERABLE. The standby emergency power sources are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that fuel, Reactor Coolant System and containment design limits are not exceeded. These limits are discussed in more detail in the Bases for Section 3.2, Power Distribution Limits; Section 3.4, Reactor Coolant System (RCS); and Section 3.6, Containment Systems.

Since diesel fuel oil and the air start subsystem support the operation of the standby AC power sources, they satisfy Criterion 3 of the NRC Policy Statement 10 CFR 50.36.(C).

LCO

Stored diesel fuel oil is required to have sufficient capacity to support standby emergency power source operation until fuel oil can be delivered from off-site or offsite power can be restored. Onsite storage of fuel oil, in conjunction with an ability to obtain additional fuel oil if required, supports the availability of standby emergency power sources required to shut down the reactor and to maintain it in a safe condition for an anticipated operational occurrence (AOO) or a postulated DBA with loss of offsite power.

Fuel oil is also required to meet specific standards for quality.

Standby emergency power source day tank requirements, as well as fuel oil transfer capability from the storage tank to the day tank, are addressed in LCO 3.8.1, "AC Sources—Operating," and LCO 3.8.2, "AC Sources—Shutdown."

The starting air system is required to have a minimum capacity such that the standby emergency power source is capable of being started and ready to accept load in 10 seconds from receipt of a start signal.

BASES

LCO (continued)

Stored diesel fuel oil is required to have sufficient capacity to support standby emergency power source operation until fuel oil can be delivered from off-site or offsite power can be restored. Onsite storage of fuel oil, in conjunction with an ability to obtain additional fuel oil if required, supports the availability of standby emergency power sources required to shut down the reactor and to maintain it in a safe condition for an anticipated operational occurrence (AOO) or a postulated DBA with loss of offsite power.

Fuel oil is also required to meet specific standards for quality.

Standby emergency power source day tank requirements, as well as fuel oil transfer capability from the storage tank to the day tank, are addressed in LCO 3.8.1, "AC Sources—Operating," and LCO 3.8.2, "AC Sources—Shutdown."

The starting air system is required to have a minimum capacity such that the standby emergency power source is capable of being started and ready to accept load in 10 seconds from receipt of a start signal.

APPLICABILITY

The AC sources (LCO 3.8.1 and LCO 3.8.2) are required to ensure the availability of the required power to shut down the reactor and maintain it in a safe shutdown condition after an AOO or a postulated DBA. Since stored diesel fuel oil and the starting air subsystem support LCO 3.8.1 and LCO 3.8.2, stored diesel fuel oil and starting air are required to be within limits when the associated standby emergency power source is required to be OPERABLE.

ACTIONS

The ACTIONS Table is modified by a Note indicating that separate Condition entry is allowed for each standby emergency power source. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable standby emergency power source subsystem. Complying with the Required Actions for one inoperable standby emergency power source subsystem may allow for continued operation, and subsequent inoperable standby emergency power source subsystem(s) are governed by separate Condition entry and application of associated Required Actions.

A.1

In this Condition, the minimum required fuel supply ~~for a~~ to support both standby emergency power sources drawing from the same tank for the minimum required time of 48 hours is not available. ~~All standby emergency power sources that are associated with any fuel oil storage~~

BASES

ACTIONS
(continued)

tank (T-175A or T-175B) that does not meet the 11,000-gallon requirement must be declared inoperable immediately and the applicable Conditions for the associated standby emergency power sources that are declared inoperable must be entered. In order to ensure that one of the two standby emergency power sources drawing from the tank can complete its mission time of 48 hours, one of the two standby emergency power sources is declared inoperable. The applicable Conditions for the associated standby emergency power sources that are declared inoperable must be entered.

A.2

The inoperable standby emergency power source is prevented from automatically starting and loading. The inoperable emergency power source is still available for manual starting and loading should it be necessary and desirable (e.g., in the event that the operable standby emergency power source does not automatically start and load).

A 1-Hour Completion Time is allowed to complete the actions since the day tanks each hold more than 1-hour of fuel, and this fuel inventory is not credited toward the ability to sustain a 48 hour fully loaded run.

B.1

In this Condition, the minimum required fuel supply for a standby emergency power source is not available. All standby emergency power sources that are associated with any fuel oil storage tank (T-175A or T-175B) that do not meet the 13,000 gallon requirement must be declared inoperable immediately and the applicable Conditions for the associated standby emergency power sources that are declared inoperable must be entered.

BC.1

This Condition is entered as a result of a failure to meet the acceptance criterion of SR 3.8.3.2. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. Poor sample procedures (bottom sampling), contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend.

CD.1

With the new fuel oil properties defined in the Diesel Fuel Oil Testing Program for SR 3.8.3.2 not within the required limits, a period of 30 days is allowed for restoring the stored fuel oil properties. This period provides sufficient time to test the stored fuel oil to determine

BASES

ACTIONS
(continued)

Since the presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine, and particulate concentration is unlikely to change significantly between Surveillance Frequency intervals, and proper engine performance has been recently demonstrated (within 31 days), it is prudent to allow a brief period prior to declaring the associated standby emergency power source inoperable. The 7 day Completion Time allows for further evaluation, resampling and re-analysis of the standby emergency power source

that the new fuel oil, when mixed with previously stored fuel oil, remains acceptable, or to restore the stored fuel oil properties. This restoration may involve feed and bleed procedures, filtering, or combinations of these procedures. Even if a standby emergency power source start and load was required during this time interval and the fuel oil properties were outside limits, there is a high likelihood that the standby emergency power source would still be capable of performing its intended function.

DE.1

With one or more standby emergency power sources' starting air system not within limits, the associated standby emergency power source may be incapable of performing its intended function and must be immediately declared inoperable.

EF.1

With a Required Action and associated Completion Time of Condition B C or GD not met, or one or more standby emergency power source's fuel oil not within limits for reasons other than addressed by Conditions BC or GD the associated standby emergency power source may be incapable of performing its intended function and must be immediately declared inoperable.

SURVEILLANCE
REQUIREMENTSSR 3.8.3.1

This SR provides verification that there is an adequate inventory of fuel oil in the storage tanks to support operation of each standby emergency power source. The required fuel oil capacity is sufficient to place the unit in a safe shutdown condition and to bring in replenishment fuel from an offsite location. The minimum fuel oil storage volume limit is (1424,000 gallons for two standby emergency power sources.) ~~does not include instrument uncertainty.~~ The Surveillance Requirement for two operable standby emergency power sources is met when indicated ~~the~~ level of each fuel oil storage tank is ≥ 3763.4%.

The 31 day Frequency is adequate to ensure that a sufficient supply of fuel oil is available, since low level alarms are provided and unit operators would be aware of any large uses of fuel oil during this period.