

Technical Specification Task Force Improved Standard Technical Specifications Change Traveler

Relocate the 10 year sediment cleaning of the fuel oil storage tank to licensee control

NUREGs Affected: 1430 1431 1432 1433 1434

Classification: 3) Improve Specifications

Recommended for CLIIP?: (Unassigned)

Correction or Improvement: (Unassigned)

Industry Contact: Tom Silko, (802) 258-4146, tsilko@entergy.com

Relocate the SR 3.8.3.6 requirement to perform a 10 year sediment cleaning of the fuel oil storage tank to licensee control. A corresponding change to the Bases has been made.

ITS ST 3.8.3.6 is a preventative type of SR. Sediment in the tank, or failure to perform this SR, does not necessarily result in an inoperable storage tank as stated in the Bases for SR 3.8.3.6. Preventative maintenance SRs generally have been relocated from the TS and allowed to be under licensee control. This SR is similar to the DG inspection SR, which was allowed to be relocated to plant controlled documents; they are both preventative maintenance requirements. Performance of SR 3.8.3.3 (fuel oil testing) and the limits of the Diesel Fuel Oil Testing Program help ensure tank sediment is minimized. Performance of SR 3.8.3.1 (fuel oil volume verification) once per 31 days ensures that any degradation of the tank wall surface that results in a fuel oil volume reduction is detected and corrected in a timely manner. In addition, another government agency has regulations governing the maintenance of below ground fuel oil tanks. As a result, adequate controls exist to allow relocation of this requirement to plant controlled documents.

Revision History

OG Revision 0

Revision Status: Closed

Revision Proposed by: Peach Bottom

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 14-Jul-95

Owners Group Comments:
Hatch Comments - OK

Owners Group Resolution: Approved Date: 14-Jul-95

TSTF Review Information

TSTF Received Date: 11-Aug-95 Date Distributed for Review: 11-Aug-95

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

WOG Comments - Concur with changes. Reference 8 in the WOG is only used as a reference in the SR being deleted, so it should be deleted as part of the change (Ref 7 in the BWR book is most likely the same).
CEOG - Agree to change.

TSTF Resolution: Approved

Date: 14-Aug-95

NRC Review Information

NRC Received Date: 03-Oct-95

31-Jul-03

OG Revision 0**Revision Status: Closed**

NRC Comments:

10/12/95 - E. Tomlinson reviewing

1/8/96 - Received Rev. 1

Final Resolution: Superseded by Revision

Final Resolution Date: 08-Jan-96

TSTF Revision 1**Revision Status: Active**

Revision Proposed by: TSTF

Revision Description:

Remarked pages to use the TSTF number instead of the OG Number

Original change eliminated the only use of the last Reference in each NUREG bases but the reference was not deleted. The revision deletes the reference.

TSTF Review Information

TSTF Received Date: 08-Jan-96

Date Distributed for Review: 08-Jan-96

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved

Date: 08-Jan-96

NRC Review Information

NRC Received Date: 08-Jan-96

NRC Comments:

Date of NRC Letter: 16-Jul-98

1-23-96 - Transferred to EELB (Frank Ashe) for input.

6/11/96 - C. Grimes Comment: TSB will accept change on a plant-specific basis. The Tech Br. not buying in on a generic basis.

9/18/96 - Traveler is pending but TSB will accept on a case by case basis. NRC continuing to pursue generic approval.

10/30/96 - NRC to provide a request for a change to add a fuel oil tank surveillance requirement, which would refer to the tank maintenance practices. The Tech Branch not buying in on a generic basis.

4/10/97 - C. Grimes return package to reviewer to determine whether clarification will resolve EELB's concerns.

8/28/97 - EELB scheduled to meet with TSTF-OG in October.

7/16/98 - Approved.

Final Resolution: NRC Approves

Final Resolution Date: 16-Jul-98

Affected Technical Specifications

SR 3.8.3.6 Diesel Fuel Oil, Lube Oil, and Starting Air

SR 3.8.3.6 Bases Diesel Fuel Oil, Lube Oil, and Starting Air

31-Jul-03

Industry/TSTF Standard Technical Specification Change Traveler

Relocate the 10 year sediment cleaning of the fuel oil storage tank to licensee control

NUREGs Affected: 1430 1431 1432 1433 1434

Description:

Relocate the SR 3.8.3.6 requirement to perform a 10 year sediment cleaning of the fuel oil storage tank to licensee control. A corresponding change to the Bases has been made.

Justification:

ITS ST 3.8.3.6 is a preventative type of SR. Sediment in the tank, or failure to perform this SR, does not necessarily result in an inoperable storage tank as stated in the Bases for SR 3.8.3.6. Preventative maintenance SRs generally have been relocated from the TS and allowed to be under licensee control. This SR is similar to the DG inspection SR, which was allowed to be relocated to plant controlled documents; they are both preventative maintenance requirements. Performance of SR 3.8.3.3 (fuel oil testing) and the limits of the Diesel Fuel Oil Testing Program help ensure tank sediment is minimized. Performance of SR 3.8.3.1 (fuel oil volume verification) once per 31 days ensures that any degradation of the tank wall surface that results in a fuel oil volume reduction is detected and corrected in a timely manner. In addition, another government agency has regulations governing the maintenance of below ground fuel oil tanks. As a result, adequate controls exist to allow relocation of this requirement to plant controlled documents.

Affected Technical Specifications

SR 3.8.3.6 Diesel Fuel Oil, Lube Oil, and Starting Air

SR 3.8.3.6 Bases Diesel Fuel Oil, Lube Oil, and Starting Air

BWROG Review Information

BWROG-10

Originating Plant: Peach Bottom

Date Provided to OG: 14-Jul-95

Needed By:

Owners Group History:

Hatch Comments - OK

Owners Group Resolution: Approved Date: 14-Jul-95

TSTF Review Information

TSTF Received Date: 11-Aug-95

Date Distributed to OGs for Review: 11-Aug-95

OG Review Completed: BWOG WOG CEOG BWROG

TSTF History:

WOG Comments - Concur with changes. Reference 8 in the WOG is only used as a reference in the SR being deleted, so it should be deleted as part of the change (Ref 7 in the BWR book is most likely the same).

CEOG - Agree to change.

TSTF Resolution: Approved

Date: 14-Aug-95

TSTF- 2

NRC Review Information

NRC Received Date: 03-Oct-95

NRC Reviewer: E. Tomlinson

Reviewer Phone #:

Reviewer Comments:

10/12/95 - E. Tomlinson reviewing

1-23-96 - Transferred to EELB (Frank Ashe) for input.

Final Resolution:

Final Resolution Date:

Revision History

Revision 1 Revision Date: 08-Jan-96 Proposed by: TSTF

Revision Description:

Remarked pages to use the TSTF number instead of the OG Number

Original change eliminated the only use of the last Reference in each NUREG bases but the reference was not deleted.
The revision deletes the reference.

Resolution: Approved Date: 08-Jan-96

Incorporation Into the NUREGs

File to BBS/LAN Date:

File to TSTF Date:

File Rev Incorporated:

File Rev Incorporated Date

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.3.2	Verify lube oil inventory is \geq [500] gal.	31 days
SR 3.8.3.3	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 3.8.3.4	Verify each DG air start receiver pressure is \geq [225] psig.	31 days
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	[31] days
SR 3.8.3.6	For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	10 years

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.8.3.4

This Surveillance ensures that, without the aid of the refill compressor, sufficient air start capacity for each DG is available. The system design requirements provide for a minimum of [five] engine start cycles without recharging. [A start cycle is defined by the DG vendor, but usually is measured in terms of time (seconds of cranking) or engine cranking speed.] The pressure specified in this SR is intended to reflect the lowest value at which the [five] starts can be accomplished.

The 31 day Frequency takes into account the capacity, capability, redundancy, and diversity of the AC sources and other indications available in the control room, including alarms, to alert the operator to below normal air start pressure.

SR 3.8.3.5

Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel storage tanks once every [31] days eliminates the necessary environment for bacterial survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, contaminated fuel oil, and from breakdown of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequencies are established by Regulatory Guide 1.137 (Ref. 2). This SR is for preventive maintenance. The presence of water does not necessarily represent failure of this SR, provided the accumulated water is removed during performance of the Surveillance.

SR 3.8.3.6

~~Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at~~

(continued)

BASES

SURVEILLANCE
REQUIREMENTS~~SR 3.8.3.6 (continued)~~

~~10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This SR also requires the performance of the ASME Code, Section XI (Ref. 8), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR, provided that accumulated sediment is removed during performance of the Surveillance.~~

REFERENCES

1. FSAR, Section [9.5.4.2].
2. Regulatory Guide 1.137.
3. ANSI N195-1976, Appendix B.
4. FSAR, Chapter [6].
5. FSAR, Chapter [15].
6. ASTM Standards: D4057-[]; D975-[];
D4176-[]; D1552-[]; D2622-[];
D2276-[], Method A.
7. ASTM Standards, D975, Table 1.
- ~~8. ASME, Boiler and Pressure Vessel Code, Section XI.~~

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.3.2	Verify lubricating oil inventory is \geq [500] gal.	31 days
SR 3.8.3.3	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 3.8.3.4	Verify each DG air start receiver pressure is \geq [225] psig.	31 days
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	[31] days
SR 3.8.3.6	For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	10 years

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.8.3.6

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This SR also requires the performance of the ASME Code, Section XI (Ref. 8), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR, provided that accumulated sediment is removed during performance of the Surveillance.

REFERENCES

1. FSAR, Section [9.5.4.2].
2. Regulatory Guide 1.137.
3. ANSI N195-1976, Appendix B.
4. FSAR, Chapter [6].
5. FSAR, Chapter [15].
6. ASTM Standards: D4057-[]; D975-[]; D4176-[]; D1552-[]; D2622-[]; D2276, Method A.
7. ASTM Standards, D975, Table 1.
8. ~~ASME, Boiler and Pressure Vessel Code, Section XI.~~

Diesel Fuel Oil, Lube Oil, and Starting Air
3.8.3

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.3.2 Verify lubricating oil inventory is \geq [500] gal.	31 days
SR 3.8.3.3 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 3.8.3.4 Verify each DG air start receiver pressure is \geq [225] psig.	31 days
SR 3.8.3.5 Check for and remove accumulated water from each fuel oil storage tank.	[31] days
SR 3.8.3.6 For each fuel oil storage tank: <ol style="list-style-type: none"> a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank. 	10 years

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.8.3.6

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This also requires the performance of the ASME Code, Section XI (Ref. 8), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventative maintenance. The presence of sediment does not necessarily represent a failure of this SR, provided that accumulated sediment is removed during performance of the Surveillance.

REFERENCES

1. FSAR, Section [9.5.4.2].
2. Regulatory Guide 1.137.
3. ANSI N195-1976, Appendix B.
4. FSAR, Chapter [6].
5. FSAR, Chapter [15].
6. ASTM Standards: D4057-[]; D975-[];
D4175-[]; D1552-[]; D2622-[];
S2276, Method A.
7. ASTM Standards, D975, Table 1.
8. ASME, Boiler and Pressure Vessel Code, Section XI.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.3.1 Verify each fuel oil storage tank contains \geq [33,000] gal of fuel.	31 days
SR 3.8.3.2 Verify lube oil inventory is \geq [500] gal.	31 days
SR 3.8.3.3 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 3.8.3.4 Verify each DG air start receiver pressure is \geq [225] psig.	31 days
SR 3.8.3.5 Check for and remove accumulated water from each fuel oil storage tank.	[31] days
SR 3.8.3.6 For each fuel oil storage tank: <ol style="list-style-type: none"> a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank. 	10 years

BASES

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.8.3.6

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This SR is typically performed in conjunction with ASME Boiler and Pressure Vessel Code, Section XI (Ref. 7), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR, provided that accumulated sediment is removed during performance of the Surveillance.

REFERENCES

1. FSAR, Section [9.5.2].
2. Regulatory Guide 1.137.
3. ANSI N195, 1976.
4. FSAR, Chapter [6].
5. FSAR, Chapter [15].
6. ASTM Standards: D4057-[]; D975-[]; D4176-[]; D1552-[]; D2622-[]; and D2276-[].
7. ASME, Boiler and Pressure Vessel Code, Section XI.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.3.1 Verify each fuel oil storage tank contains: <ul style="list-style-type: none"> a. \geq [62,000] gal of fuel for [DGs 11 and 12;] and b. \geq [41,200] gal of fuel for [DG 13]. 	31 days
SR 3.8.3.2 Verify lube oil inventory is: <ul style="list-style-type: none"> a. \geq [] gal for [DGs 11 and 12;] and b. \geq [] gal for [DG 13]. 	31 days
SR 3.8.3.3 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 3.8.3.4 Verify each DG air start receiver pressure is \geq [225] psig.	31 days
SR 3.8.3.5 Check for and remove accumulated water from each fuel oil storage tank.	[31] days
SR 3.8.3.6 For each fuel oil storage tank: <ul style="list-style-type: none"> a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank. 	10 years

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.8.3

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This SR is typically performed in conjunction with the ASME Boiler and Pressure Vessel Code, Section XI (Ref. 7), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR provided that accumulated sediment is removed during performance of the Surveillance.

REFERENCES

1. FSAR, Section [9.5.4].
2. Regulatory Guide 1.137.
3. ANSI N195, Appendix B, 1976.
4. FSAR, Chapter [6].
5. FSAR, Chapter [15].
6. ASTM Standards: D4057-[]; D975-[]; D4176-[]; D975-[]; D1552-[]; D2622-[]; D2276-[].
7. ASME, Boiler and Pressure Vessel Code, Section XI.