

**Florida
Power**
CORPORATION
Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72

March 6, 2000
3F0300-01

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

Subject: License Amendment Request #254, Revision 0
Emergency Feedwater Pump Lube Oil Volume

- References:
1. FPC to NRC letter, 3F1198-01, dated November 24, 1998, "License Amendment Request #240, Revision 0, Addition of Safety-Related Diesel-Driven Emergency Feedwater Pump"
 2. NRC to FPC Letter, 3N0899-05, dated August 11, 1999, "Crystal River Unit 3 - Issuance of Amendment Regarding Addition of a Safety-Related Diesel-Driven Emergency Feedwater Pump (TAC No. MA3613)" (Amendment 182)

Dear Sir:

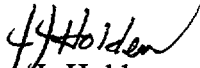
In accordance with 10 CFR 50.90, Florida Power Corporation (FPC) requests that Appendix A of Facility Operating License DPR-72 be amended to modify Improved Technical Specifications (ITS) Section 3.7.19. In Reference 1, FPC requested an ITS Condition and a Surveillance Requirement (SR) that specified a required lube oil volume for the safety-related diesel-driven emergency feedwater pump (EFP-3). These parameters were added to the Crystal River Unit 3 (CR-3) ITS by Amendment 182 (Reference 2). A review of the lube oil consumption calculations determined that the lube oil volumes specified in the approved ITS are not adequate. In addition, the EFP-3 lube oil consumption rate is higher than the value supplied by the pump vendor. This submittal provides changes to ITS and ITS Bases that address both of these issues.

CR-3 has reviewed the guidance provided in NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," and has determined that the requested ITS change is not required for continued operation of CR-3. CR-3 can meet the existing ITS requirements and has administrative controls in place to assure that EFP-3 has adequate lube oil inventory to meet its design basis functions. Therefore, no specific NRC approval date is requested.

U.S. Nuclear Regulatory Commission
3F0300-01
Page 2 of 3

If you have any questions regarding this submittal, please contact Mr. Sid Powell, Manager, Nuclear Licensing at (352) 563-4883 or Paul Infanger, Nuclear Licensing, at (352) 563-4796.

Sincerely,


John J. Holden
Vice President and Site Director

JJH/pei

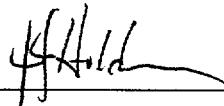
xc: Regional Administrator, Region II
NRR Project Manager
Senior Resident Inspector
Florida Department of Health

Attachments:

- A. List of Regulatory Commitments
- B. Description and Justification for Proposed Changes, No Significant Hazards Evaluation and Environmental Impact Evaluation
- C. Proposed Revised Improved Technical Specifications and Bases Pages Strikeout Version
- D. Proposed Revised Improved Technical Specifications and Bases Pages With Revision Lines

STATE OF FLORIDA
COUNTY OF CITRUS

John J. Holden states that he is the Vice President and Site Director for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

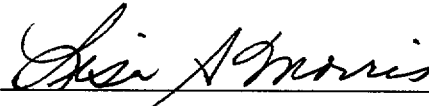


John J. Holden
Vice President and Site Director

Sworn to and subscribed before me this 6th day of March, 2000, by
John J. Holden.



LISA A. MORRIS
Notary Public, State of Florida
My Comm. Exp. Oct. 25, 2003
Comm. No. CC 879691



Signature of Notary Public
State of Florida

LISA A MORRIS

(Print, type, or stamp Commissioned
Name of Notary Public)

Personally Known X -OR- Produced Identification _____

**FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NO. 50-302/LICENSE NO. DPR-72**

ATTACHMENT A

**LICENSE AMENDMENT REQUEST #254, REVISION 0
Emergency Feedwater Pump Lube Oil Volume**

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Florida Power Corporation in this document. Any other actions discussed in the submittal represent intended or planned actions by Florida Power Corporation. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager, Nuclear Licensing of any questions regarding this document or any associated regulatory commitments.

Commitment	Due Date
FPC will maintain at least 207 gallons of lube oil available, stored on-site, for the diesel-driven emergency feedwater pump (EFP-3) by administrative controls.	Until issuance of this requested License Amendment

**FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NO. 50-302/LICENSE NO. DPR-72**

ATTACHMENT B

**LICENSE AMENDMENT REQUEST #254, REVISION 0
Emergency Feedwater Pump Lube Oil Volume**

**Description and Justification for Proposed Changes,
No Significant Hazards Evaluation and
Environmental Impact Evaluation**

Description and Justification for Proposed Changes:

1.0 Proposed Change

Crystal River Unit 3 (CR-3) proposes to revise Improved Technical Specifications (ITS) 3.7.19, Condition B from: “With DD-EFW Pump diesel lube oil inventory < 221 gal and > 211 gal.” to “With *stored* DD-EFW Pump diesel lube oil inventory < 207 gal and > 178 gal.”

CR-3 also proposes to revise ITS 3.7.19, Required Action B.1 from: “Restore lube oil inventory to within limits.” to “Restore *stored* lube oil inventory to within limits.”

In addition, a change is proposed to revise Surveillance Requirement (SR) 3.7.19.2 from: “Verify that DD-EFW Pump lube oil inventory is \geq 221 gal.” to “Verify that DD-EFW Pump *stored* lube oil inventory is \geq 207 gal.”

The Bases for ITS 3.7.19 are also revised to reflect these changes and that the stored lube oil does not include the lube oil contained in the diesel engine sump or auxiliaries. The revised ITS Bases also state that the lube oil requirements are based on DD-EFW Pump lube oil consumption test data.

2.0 Background

On-site testing identified that the actual lube oil consumption rate of the diesel-driven emergency feedwater (DD-EFW) pump (EFP-3) was greater than the vendor-supplied value. The vendor-supplied lube oil consumption rate was used to develop the values for lube oil volume included in the current ITS 3.7.19. The required volume of lube oil inventory is specified in Condition B and Surveillance Requirement (SR) 3.7.19.2. On-site tests have shown that the values for lube oil volume stated in the current ITS are not adequate to meet the pump run time requirements defined in the ITS Bases. In addition, an error was identified in the calculated volume of the EFP-3 lube oil sump and auxiliaries. The proposed change corrects both discrepancies.

The existing ITS SR 3.7.19.2 verifies that lube oil inventory is at least 221 gallons, which was the calculated required volume for the EFP-3 lube oil sump and auxiliaries. The values in Condition B, 211 gallons and 221 gallons, were the calculated volumes to assure six days and seven days of pump operation, respectively. These values were based on design calculations that were completed prior to the assembly of EFP-3.

The initial calculation of 221 gallons of lube oil included the minimum amount required for pump operation plus the amount of lube oil that would be consumed during 7 days of operation. An error was identified which showed the total volume for the lube oil sump and auxiliaries is greater than previously calculated. Because of this error, 221 gallons is not the correct required volume for EFP-3 lube oil inventory. Had no other problems been identified,

this error could have been corrected by increasing the required volume of lube oil in ITS SR 3.7.19.2 and Condition B to 249 gallons for seven-day operation and 239 gallons for six-day operation. However, increased lube oil consumption has created an additional need to revise the value of the lube oil inventory volume.

The increased lube oil consumption rate also requires a change to the convention for referencing lube oil inventory from a total volume to a consumed volume. The value for lube oil inventory specified in the proposed ITS is the amount of lube oil that is consumed during operation. This consumption value does not include the lube oil inventory in the diesel engine sump and auxiliaries. This convention is being changed for two reasons: (1) this methodology eliminates the error in the calculated total volume of the lube oil sump and auxiliaries since only the consumed lube oil volume is included in ITS, and (2) this convention allows part of the lube oil to be stored off-engine (in on-site storage). The total volume of the sump and auxiliaries was originally determined to be large enough to contain the minimum amount of lube oil needed to run the engine plus the amount of lube oil consumed in seven days of continuous operation. However, the total of these two amounts is greater than the volume of lube oil that the EFP-3 engine can hold.

On-site testing has shown that EFP-3 is experiencing greater lube oil consumption than was assumed when developing the ITS requirements that were approved in Amendment 182. The lube oil consumption for seven-day operation was previously calculated to be 72 gallons. Test run data for EFP-3 has shown that lube oil consumption could be as high as 207 gallons for seven-day operation. Therefore, the ITS and ITS Bases are being revised to indicate that a minimum of 207 gallons of stored lube oil will be maintained available for seven-day operation of EFP-3. The ITS Condition will allow 48 hours to replenish this supply if stored volume drops below a seven-day supply (207 gallons), but remains above a six-day supply (178 gallons). A summary of the lube oil values is included in Table 1 of this attachment.

3.0 Interim Actions

The current CR-3 ITS requires that at least 221 gallons of lube oil be maintained in the EFP-3 diesel engine. CR-3 will maintain the engine lube oil inventory greater than this value. The 221 gallon ITS requirement is being met with the volume of lube oil in the EFP-3 diesel engine sump and auxiliaries and does not include the on-site (off-engine) stored inventory. The ITS required 221 gallons is greater than the minimum needed for acceptable EFP-3 operation (177 gallons). Even with the current lube oil consumption rate, the existing ITS required volume of lube oil provides adequate time to replenish the engine lube oil inventory (approximately 36 hours). In order to assure EFP-3 operability and meet the intent of the ITS, CR-3 is administratively requiring that 207 gallons of lube oil be maintained available in on-site storage to ensure that a seven-day supply of lube oil is available. These administrative controls ensure the same margin of safety as the proposed ITS and Bases revisions.

4.0 Precedents

The proposed ITS changes are requested in order to restore the Emergency Feedwater (EFW) system requirements to meet the intent of the Bases for ITS 3.7.19. The proposed ITS Condition is requested to address the case where the stored lube oil volume is between a six-day (178 gallons) and a seven-day (207 gallons) supply. The requested SR will require verification that the stored volume of lube oil is adequate to permit seven days of EFP-3 operation. These requirements were approved with different calculated volumes in Amendment 182.

The capability to take credit for lube oil stored off-engine has been previously approved for the CR-3 emergency diesel generator lube oil specification (ITS 3.8.3). This convention is also included in NUREG 1430, Revision 1, "Standard Technical Specifications for Babcock and Wilcox Plants," for ITS 3.8.3, Diesel Fuel Oil, Lube Oil and Starting Air.

5.0 Justification

CR-3 has verified that the EFP-3 diesel engine is fully capable of performing its safety function. The engine manufacturer has stated that increased lube oil consumption is typical of diesel engines until a certain number of operating hours have been accumulated. Although the required number of operating hours is not large, it may be a number of years before this time of service is reached due to the limited use of emergency feedwater. Therefore, EFP-3 may continue to consume lube oil at a higher rate for several operating cycles. On-site testing indicates that lube oil consumption is decreasing toward the expected range.

The most significant of the proposed changes is allowing the seven-day supply of lube oil to be stored off-engine. Changing this convention does not present a significant concern because the EFP-3 diesel engine is designed to allow monitoring of lube oil level and to allow addition of lube oil while the engine is operating. The inventory of lube oil in the sump provides sufficient time to transfer stored lube oil to the diesel engine.

The proposed changes increase the requirement for stored lube oil to account for the increase in lube oil consumption. The value for stored lube oil chosen, 207 gallons, is a conservative value based on testing. No further testing or changes to this ITS value are anticipated. The revised stored inventory values ensure that enough lube oil is available for seven-day operation of EFP-3. The revised ITS Condition ensures that at least a six-day inventory is available and a seven-day supply is restored in 48 hours. Both of these changes restore the margin of safety intended in the existing ITS and ITS Bases. The interim administrative controls that are in place will ensure the same margin of safety as the proposed ITS and ITS Bases until they are approved.

Table 1: Summary of Lube Oil Values

Lube oil requirement	Original Calculation	Existing ITS	Revised Calculation	Proposed ITS
EFP-3 engine volume	221 gallons	221 gallons	249 gallons	not in ITS
Minimum needed for engine operation	149 gallons	not in ITS	177 gallons	not in ITS
7 day consumption	72 gallons	included in 221 gallons	207 gallons	207 gallons
6 day consumption	62 gallons	included in 211 gallons	178 gallons	178 gallons

No Significant Hazards Evaluation:

The proposed license amendment involves revision to an Improved Technical Specification (ITS) Action Condition and Surveillance Requirement (SR) for the safety-related diesel-driven emergency feedwater pump (EFP-3). The ITS required inventory volume for lube oil is revised to agree with the actual test values and are included in the ITS Action Condition, Surveillance Requirement and Bases.

An evaluation of the proposed license amendment has been performed according to 10 CFR 50.91(a)(1) regarding significant hazards considerations, using the standards in 10 CFR 50.92(c).

1. *Does not involve a significant increase in the probability or consequences of an accident previously evaluated.*

The revised lube oil requirements are being made to ensure EFP-3 is capable of seven days of continuous operation. The proposed amendment provides the same functional requirement as previously approved. The EFW system is used for accident mitigation and is not an initiator of design basis accidents. Therefore, the probability of previously analyzed events is not affected by this change. No capability or design functions of EFP-3 or the emergency feedwater (EFW) system will change. The initial conditions for accidents that require EFW and accident mitigation capability of the EFW system will remain unchanged. Therefore, the proposed amendment will not increase the consequences of evaluated accidents.

2. *Does not create the possibility of a new or different kind of accident from any accident previously evaluated.*

The revised ITS Condition will ensure equipment is restored to operable status in accordance with previously approved timeframes and functional levels. The revised SR will assure the same functional requirement as the previously approved SR. Lube oil will be stored on-site

and the lube oil inventory in the sump ensures adequate time to transfer the stored inventory into the engine. No new plant configurations or conditions are created by these revised ITS Conditions or SR. Therefore, the proposed amendment cannot create the possibility of an accident of a different type than previously evaluated in the Safety Analysis Report.

3. *Does not involve a significant reduction in the margin of safety.*

The proposed ITS Condition and SR changes ensure adequate lube oil inventory is available to operate EFP-3 for seven days. The proposed changes replace the calculated lube oil inventory values with a more conservative value derived from actual test data for EFP-3. The revised SR ensures the same functional requirement for a seven-day supply of lube oil for EFP-3 as was previously approved. Similarly, the revised ITS Condition ensures the same functional level as currently approved by requiring that a reduced lube oil inventory of less than seven days but more than six days is restored to the seven-day level within 48 hours. The revised SR allows the lube oil inventory to be stored off engine. The inventory in the EFP-3 sump and auxiliaries provides sufficient time to permit the transfer of stored inventory into the engine. EFP-3 is designed to allow monitoring of lube oil level and addition of lube oil while the engine is operating. Based on the above, the revised ITS meets the same intent as the currently approved specifications. Therefore, there is no reduction in the margin of safety associated with the proposed ITS amendment.

Environmental Impact Evaluation:

10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released off-site, or (3) result in a significant increase in individual or cumulative occupational radiation exposure. FPC has reviewed this license amendment and has determined that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment need to be prepared in connection with the issuance of the proposed license amendment. The basis for this determination is as follows:

1. The proposed license amendment does not involve a significant hazards consideration as described previously in the evaluation.
2. As discussed in the no significant hazards evaluation, this change does not result in a significant change or significant increase in the radiological doses for any Design Basis Accident. The proposed license amendment does not result in a significant change in the types or a significant increase in the amounts of any effluents that may be released off-site. FPC has concluded that there will not be a significant change in the types or

increase in the amounts of any effluents that may be released off-site and does not involve irreversible environmental consequences beyond those already associated with the Final Environmental Statement.

3. The proposed license amendment does not result in a significant increase to the individual or cumulative occupational radiation exposure because this is a change to plant equipment that does not interface with radiologically contaminated systems and does not require operator or other actions that could increase occupational radiation exposure.

**FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NO. 50-302/LICENSE NO. DPR-72**

ATTACHMENT C

**LICENSE AMENDMENT REQUEST #254, REVISION 0
Emergency Feedwater Pump Lube Oil Volume**

**Proposed Revised Improved Technical Specifications and Bases Pages
Strikeout Version**

3.7 PLANT SYSTEMS

3.7.19 Diesel Driven EFW (DD-EFW) Pump Fuel Oil, Lube Oil and Starting Air

LCO 3.7.19 The stored diesel fuel oil, lube oil, and starting air subsystems shall be within limits for the DD-EFW Pump.

APPLICABILITY: When the associated DD-EFW Pump is required to be OPERABLE.

-----NOTE-----
LCO 3.0.4 is not applicable.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DD-EFW Pump fuel oil supply tank level < 9,480 gal and > 8,335 gal in the storage tank.	A.1 Restore fuel oil level to within limits.	48 hours
B. With stored DD-EFW Pump diesel lube oil inventory < 221 207 gal and > 211 178 gal.	B.1 Restore stored lube oil inventory to within limits.	48 hours
C. DD-EFW Pump with stored fuel oil total particulates not within limits.	C.1 Restore fuel oil total particulates to within limits.	7 days
D. DD-EFW Pump with new fuel oil properties not within limits.	D.1 Restore stored fuel oil properties to within limits.	30 days
E. DD-EFW Pump with starting air receiver pressure < 177 psig and > 150 psig.	E.1 Restore starting air receiver pressure to within limits.	48 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Required ACTION and associated Completion Time not met.</p> <p><u>OR</u></p> <p>For DD-EFW Pump fuel oil, lube oil or starting air subsystems not within limits for reasons other than Conditions A, B, C, D or E.</p>	<p>F.1 Declare DD-EFW Pump inoperable.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.19.1 Verify DD-EFW Pump fuel oil storage tank contains \geq 9,480 gal of fuel.</p>	<p>31 days</p>
<p>SR 3.7.19.2 Verify DD-EFW Pump stored lube oil inventory is \geq 221 207 gal.</p>	<p>31 days</p>
<p>SR 3.7.19.3 Verify DD-EFW Pump 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.</p>	<p>In accordance with the Diesel Fuel Oil Testing Program</p>
<p>SR 3.7.19.4 Verify DD-EFW Pump starting air receiver pressure is \geq 177 psig.</p>	<p>31 days</p>

BASES

BACKGROUND
(continued)

engine working surfaces and to remove excess heat generated by friction during operation. ~~The lube oil inventory, including that contained in the engine sump,~~ **The onsite lube oil storage** is sufficient to ensure 7 days of operation. This supply ensures adequate time is available to replenish lube oil from outside sources prior to the system running out of lube oil.

The DD-EFW Pump engine has an air start system with adequate capacity for six successive start attempts on the engine without recharging the air start receivers. A single DD-EFW pump engine start is assured with air receiver pressure > 150 psig.

APPLICABLE
SAFETY ANALYSIS

The initial conditions of Design Basis Accident (DBA) and transient analyses in the FSAR, Chapter 6 (Ref. 4) and Chapter 14 (Ref. 5), assume Engineered Safeguard (ES) systems are OPERABLE. The DD-EFW Pump is designed to provide sufficient EFW flow capacity to ensure the availability of necessary emergency feedwater to one or two steam generators. The DD-EFW pump is part of the redundant and diverse EFW system that provide steam generator secondary side cooling water.

Since diesel fuel oil, lube oil, and the air start subsystem support the operation of the DD-EFW pump system, they satisfy Criterion 3 of the NRC Policy Statement.

LCO

A sufficient quantity of stored diesel fuel oil supply is required to be available to ensure the capability to operate the DD-EFW Pump for 7 days. Diesel fuel oil is also required to meet specific quality standards. This EFW train is one of the two, full capacity and diverse sources of emergency feedwater for steam generator secondary side cooling.

A sufficient lube oil supply must be available to ensure the capability to operate the diesel engine for its 7 day fuel capacity (without refueling) rating. Engine lube oil

(continued)

BASES

ACTIONS

B.1

With stored lube oil inventory between ~~211~~ 178 and ~~221~~ 207 gallons, there is not sufficient lube oil to support 7 days continuous operation of the DD-EFW Pump. However, the Condition is restricted to lube oil volume reductions that maintain at least a 6 day supply. In this Condition, a period of 48 hours is considered adequate to restore the required volume prior to declaring the DD-EFW Pump inoperable. The volume of stored lube oil specified does not include the engine lube oil inventory contained in the sump. If the required stored volume cannot be restored, the DD-EFW Pump is declared inoperable.

The 48 hour Completion Time is acceptable based on the remaining capacity (> 6 days), the low rate of usage, the actions that will be initiated to obtain replenishment, and the low probability of an event occurring during this brief period.

C.1

This Condition is entered as a result of a failure to meet the acceptance criterion for DD-EFW Pump fuel oil particulates. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. However, poor sample procedures (bottom sampling), contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulates does not mean the fuel oil will not burn properly and given that proper engine performance has been recently demonstrated (per SR 3.7.5.2), it is prudent to allow a brief period of time prior to declaring the associated DD-EFW Pump inoperable. The 7 day Completion Time allows for further evaluation, resampling, and re-analysis of the DD-EFW Pump fuel oil.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.7.19.1

This SR provides verification that there is an adequate usable inventory of fuel oil in the supply tank to support operation of the DD-EFW pump for 7 days, assuming no offsite power and Appendix K decay heat removal EFW flow requirements. The 7 days is sufficient time to place the plant in a safe shutdown condition and to bring in replenishment fuel from an offsite location.

The 31 day Frequency is adequate to ensure that a sufficient supply of fuel oil is available, since low level alarms are provided and the likelihood of any large reductions (use or leakage) of fuel oil during this period would be detected.

SR 3.7.19.2

This Surveillance ensures that sufficient lube oil inventory is available to support at least 7 days of operation of DD-EFW Pump assuming Appendix K decay heat removal EFW flow requirements. The ~~221~~ 207 gallon requirement is based on DD-EFW Pump lube oil consumption test data, ~~the diesel manufacturer consumption values for the run time of the engine.~~ The specified stored lube oil volume ~~does not~~ includes the lube oil contained in the sump.

A 31 day Frequency is adequate to ensure that a sufficient lube oil supply is onsite, since DD-EFW pump starts and run time are closely monitored by the plant staff.

SR 3.7.19.3

The tests listed below are a means of determining whether new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate, detrimental impact on diesel engine performance. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the

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**FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NO. 50-302/LICENSE NO. DPR-72**

ATTACHMENT D

**LICENSE AMENDMENT REQUEST #254, REVISION 0
Emergency Feedwater Pump Lube Oil Volume**

**Proposed Revised Improved Technical Specifications and Bases Pages
With Revision Lines**

3.8 PLANT SYSTEMS

3.7.19 Diesel Driven EFW (DD-EFW) Pump Fuel Oil, Lube Oil and Starting Air

LCO 3.7.19 The stored diesel fuel oil, lube oil, and starting air subsystems shall be within limits for the DD-EFW Pump.

APPLICABILITY: When the associated DD-EFW Pump is required to be OPERABLE.

-----NOTE-----
LCO 3.0.4 is not applicable.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DD-EFW Pump fuel oil supply tank level < 9,480 gal and > 8,335 gal in the storage tank.	A.1 Restore fuel oil level to within limits.	48 hours
B. With stored DD-EFW Pump diesel lube oil inventory < 207 gal and > 178 gal.	B.1 Restore stored lube oil inventory to within limits.	48 hours
C. DD-EFW Pump with stored fuel oil total particulates not within limits.	C.1 Restore fuel oil total particulates to within limits.	7 days
D. DD-EFW Pump with new fuel oil properties not within limits.	D.1 Restore stored fuel oil properties to within limits.	30 days
E. DD-EFW Pump with starting air receiver pressure < 177 psig and > 150 psig.	E.1 Restore starting air receiver pressure to within limits.	48 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Required ACTION and associated Completion Time not met.</p> <p><u>OR</u></p> <p>For DD-EFW Pump fuel oil, lube oil or starting air subsystems not within limits for reasons other than Conditions A, B, C, D or E.</p>	<p>F.1 Declare DD-EFW Pump inoperable.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.19.1 Verify DD-EFW Pump fuel oil storage tank contains \geq 9,480 gal of fuel.</p>	<p>31 days</p>
<p>SR 3.7.19.2 Verify DD-EFW Pump stored lube oil inventory is \geq 207 gal.</p>	<p>31 days</p>
<p>SR 3.7.19.3 Verify DD-EFW Pump 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.</p>	<p>In accordance with the Diesel Fuel Oil Testing Program</p>
<p>SR 3.7.19.4 Verify DD-EFW Pump starting air receiver pressure is \geq 177 psig.</p>	<p>31 days</p>

BASES

BACKGROUND
(continued)

engine working surfaces and to remove excess heat generated by friction during operation. The onsite lube oil storage is sufficient to ensure 7 days of operation. This supply ensures adequate time is available to replenish lube oil from outside sources prior to the system running out of lube oil.

The DD-EFW Pump engine has an air start system with adequate capacity for six successive start attempts on the engine without recharging the air start receivers. A single DD-EFW pump engine start is assured with air receiver pressure > 150 psig.

APPLICABLE
SAFETY ANALYSIS

The initial conditions of Design Basis Accident (DBA) and transient analyses in the FSAR, Chapter 6 (Ref. 4) and Chapter 14 (Ref. 5), assume Engineered Safeguard (ES) systems are OPERABLE. The DD-EFW Pump is designed to provide sufficient EFW flow capacity to ensure the availability of necessary emergency feedwater to one or two steam generators. The DD-EFW pump is part of the redundant and diverse EFW system that provide steam generator secondary side cooling water.

Since diesel fuel oil, lube oil, and the air start subsystem support the operation of the DD-EFW pump system, they satisfy Criterion 3 of the NRC Policy Statement.

LCO

A sufficient quantity of stored diesel fuel oil supply is required to be available to ensure the capability to operate the DD-EFW Pump for 7 days. Diesel fuel oil is also required to meet specific quality standards. This EFW train is one of the two, full capacity and diverse sources of emergency feedwater for steam generator secondary side cooling.

A sufficient lube oil supply must be available to ensure the capability to operate the diesel engine for its 7 day fuel capacity (without refueling) rating. Engine lube oil

(continued)

BASES

ACTIONS

B.1

With stored lube oil inventory between 178 and 207 gallons, there is not sufficient lube oil to support 7 days continuous operation of the DD-EFW Pump. However, the Condition is restricted to lube oil volume reductions that maintain at least a 6 day supply. In this Condition, a period of 48 hours is considered adequate to restore the required volume prior to declaring the DD-EFW Pump inoperable. The volume of stored lube oil specified does not include the engine lube oil inventory contained in the sump. If the required stored volume cannot be restored, the DD-EFW Pump is declared inoperable.

The 48 hour Completion Time is acceptable based on the remaining capacity (> 6 days), the low rate of usage, the actions that will be initiated to obtain replenishment, and the low probability of an event occurring during this brief period.

C.1

This Condition is entered as a result of a failure to meet the acceptance criterion for DD-EFW Pump fuel oil particulates. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. However, poor sample procedures (bottom sampling), contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulates does not mean the fuel oil will not burn properly and given that proper engine performance has been recently demonstrated (per SR 3.7.5.2), it is prudent to allow a brief period of time prior to declaring the associated DD-EFW Pump inoperable. The 7 day Completion Time allows for further evaluation, resampling, and re-analysis of the DD-EFW Pump fuel oil.

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.7.19.1

This SR provides verification that there is an adequate usable inventory of fuel oil in the supply tank to support operation of the DD-EFW pump for 7 days, assuming no offsite power and Appendix K decay heat removal EFW flow requirements. The 7 days is sufficient time to place the plant in a safe shutdown condition and to bring in replenishment fuel from an offsite location.

The 31 day Frequency is adequate to ensure that a sufficient supply of fuel oil is available, since low level alarms are provided and the likelihood of any large reductions (use or leakage) of fuel oil during this period would be detected.

SR 3.7.19.2

This Surveillance ensures that sufficient lube oil inventory is available to support at least 7 days of operation of DD-EFW Pump assuming Appendix K decay heat removal EFW flow requirements. The 207 gallon requirement is based on DD-EFW Pump lube oil consumption test data. The stored lube oil volume does not include the lube oil contained in the sump.

A 31 day Frequency is adequate to ensure that a sufficient lube oil supply is onsite, since DD-EFW pump starts and run time are closely monitored by the plant staff.

SR 3.7.19.3

The tests listed below are a means of determining whether new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate, detrimental impact on diesel engine performance. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the

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