

ATTACHMENT 3

PROPOSED LICENSE AMENDMENT FOR
USE OF TEMPORARY FUEL OIL STORAGE SYSTEM FOR UNIT 3 DIESELS
DURING THE PERFORMANCE OF A 10 YEAR SURVEILLANCE
TECHNICAL SPECIFICATION

PROPOSED TECHNICAL SPECIFICATIONS

3.8.1.1 AC SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION:
3.8.1.1

Page 3/4 8-1

REQUIRED SURVEILLANCE: 4.8.1.1.2i.1

Page 3/4 8-9

3.8.1.2 AC SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION:
3.8.1.2

Page 3/4 8-11

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3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two startup transformers and their associated circuits, and
- b. Three separate and independent diesel generators* including,
 - 1) For Unit 3, two (3A and 3B); for Unit 4, one (3A or 3B) each with:
 - a) A separate skid-mounted fuel tank and a separate day fuel tank with an OPERABLE solenoid valve to permit gravity flow from the day tank to the skid mounted tank, and with the two tanks together containing a minimum of 2000 gallons of fuel oil.
 - b) A common Fuel Storage System containing a minimum volume of 38,000 gallons of fuel,**
 - c) A separate fuel transfer pump,**
 - d) Lubricating oil storage containing a minimum volume of 120 gallons of lubricating oil,
 - e) Capability to transfer lubricating oil from storage to the diesel generator unit, and
 - f) Energized MCC bus (MCC 3A vital section for EDG 3A, MCC 3K for EDG 3B).
 - 2) For Unit 3, one (4A or 4B); for Unit 4, two (4A and 4B) each with:
 - a) A separate day fuel tank containing a minimum volume of 230 gallons of fuel,
 - b) A separate Fuel Storage System containing a minimum volume of 34,700 gallons of fuel,
 - c) A separate fuel transfer pump, and
 - d) Energized MCC bus (MCC 4J for EDG 4A, MCC 4K for EDG 4B).

*Whenever one or more of the four EDG's is out-of-service, ensure compliance with the EDG requirements specified in Specifications 3.5.2 and 3.8.2.1.

** A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i 1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

3.8.1.1 AC SOURCES

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all required diesel generators simultaneously and verifying that all required diesel generators provide 60 ± 1.2 Hz frequency and 4160 ± 420 volts in less than or equal to 15 seconds; and
- I. At least once per 10 years by:
 - 1) Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank.*
 - 2) For Unit 4 only, performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda.

4.8.1.1.3 Reports - (Not Used)

* A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One startup transformer and associated circuits, or an alternate circuit, between the offsite transmission network and the 4160 volt bus, A or B, and
- b. One diesel generator with:
 - 1) For Unit 3 (3A or 3B)
A skid-mounted fuel tank and a day fuel tank, with an OPERABLE solenoid valve to permit gravity flow from the day tank to the skid mounted tank, with the two tanks together containing a minimum of 2000 gallons of fuel oil

For Unit 4 (4A or 4B)
A day fuel tank containing a minimum volume of 230 gallons of fuel
 - 2) A fuel storage system containing a minimum volume of fuel of 38,000 gallons (Unit 3), 34,700 gallons (Unit 4)
 - 3) An associated fuel transfer pump
 - 4) For Unit 3 only, lubricating oil storage containing a minimum volume of 120 gallons of lubricating oil
 - 5) For Unit 3 only capability to transfer lubricating oil from storage to the diesel generator unit and
 - 6) Energized MCC bus (as identified by Specification 3.8.1.1.b.).

APPLICABILITY: MODES 5** and 6**.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 2.2 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible and increase RCS inventory as soon as possible.

* A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

** CAUTION - If the opposite unit is in MODES 1, 2, 3 or 4 see Specification 3.8.1.1

ATTACHMENT 4

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

In response to FPL's letter L-96-210, the NRC requested additional information contained within the NRC's correspondence of July 16, 1997 which is provided herein.

Response To NRC Request For Additional Information

NRC Request

"1.0 In page 5 of Attachment 1 to the November 22, 1996 submittal Florida Power and Light (FPL) stated that the storage tank supplies fuel oil to the 4000 gallon day tank of each EDG [emergency diesel generator]. This day tank has enough fuel to operate its associated EDG at rated capacity for approximately 17 hours. Also, in page 6 of the attachment FPL stated that the day tank and the skid tank will have at least 3680 gallons and 200 gallons respectively, prior to taking the permanent storage tank out of service. This will provide approximately 17 hours of operation based on current Unit 3 EDG full load requirements. However, Sections 3.8.1.1 and 3.8.1.2 of the current Technical Specifications (TS) only require a total of 2000 gallons of fuel oil to be maintained in the day tank and skid tank. Provide the following information:

- a. Provide clarification for the above discrepancy.
- b. Describe the provisions made to ensure that at least 3880 gallons of fuel oil will be available in the day tank and skid tank prior to taking the permanent storage tank out of service.
- c. With a TS requirement of 2000 gallons of fuel oil maintained in the day tank and skid tank, how long (based on rated capacity or time dependent loads) the EDG will be able to operate?"

FPL Response

- a. The nominal capacity of the day tank is 4000 gallons. The day tank can be filled with a volume of at least 3680 gallons of fuel oil without actuating the high level alarm. The skid tank has a nominal capacity of 275 gallons. Normally the tank is in standby with a minimum volume of 200 gallons.

NUREG-1431, " Standard Technical Specifications Westinghouse Plants," dated September 1992, suggests that the combined capacity of the skid and day tanks that is surveilled in the Technical Specifications for the EDGs be specified for one hour of EDG service at full load plus 10%. The 2000 gallon capacity required by the Technical Specifications for the Unit 3 day and skid tanks at Turkey Point is based on eight hours of EDG operation, which exceeds that suggested by NUREG-1431.

- b. An approved plant procedure will be provided to ensure that at least 3880 gallons of fuel oil will be available in the day tank and skid tank prior to removing the permanent storage tank from service. This procedure will address manually filling the day tank and skid tank to the minimum volume discussed above.
- c. Based upon the 168 hour rating and the associated fuel consumption rate, the EDG will run for over 8 hours on the Technical Specification minimum of 2000 gallons of fuel oil.

NRC Request

"2.0 Updated Final Safety Analysis Report, Section 9.15.1.2.1 states that the diesel fuel oil storage tank has a capacity of 64,000 gallons, which provides sufficient storage capacity to permit one EDG (3A or 3B) to operate at its "168 hour rating" for at least 7 days. However, current TS Sections 3.8.1.1 and 3.8.1.2 only require a minimum of 38,000 gallons of fuel oil to be stored in the fuel oil storage tank. With a TS requirement of 38,000 gallons of fuel oil maintain in the fuel oil storage tank, how long (based on rated capacity or time dependent loads) will the EDG be able to operate?"

FPL Response

The Updated Turkey Point FSAR refers to the maximum capacity of the diesel oil storage tank as 64,000 gallons. At the 168 hour rating of 2950 kW, the EDG will run longer than seven days on 38,000 gallons of fuel oil. The 168 hour rating is conservative for the expected operating load of either the 3A or 3B EDG.

NRC Request

"3.0 In page 1 of Attachment 1 to the November 22, 1996 submittal FPL stated that the proposed note for Surveillance Requirement 4.8.1.1.2i.1 will allow the use of a temporary system for storage and delivery of at least a 7-day supply of diesel fuel oil for Unit 3 EDG. FPL further stated that the capability of this temporary system to deliver fuel will maintain the operability of the EDG for 10 days. However, FPL did not discuss how a 7-day supply of fuel oil for Unit 3 EDG will be able to maintain the operability of the EDG for 10 days. Provide a detailed discussion to clarify the above statements."

FPL Response

The 7 day temporary supply of fuel oil (38,000 gallons minimum) will be available for a period of 10 days to maintain the operability of the Unit 3 EDGs. Ten days is a conservative estimate of time required for the tank cleaning evolution. If an event should occur which requires EDG operation during the 10 day tank cleaning evolution, the fuel can be replaced from offsite sources well within the 7 day period of time that is provided by the temporary onsite supply. This was done after Hurricane Andrew in 1992.

NRC Request

"4.0 In page 1 of Attachment 1 to the November 22, 1996 submittal FPL stated that with the proposed TS amendment in place, if 10 days of operation are exceeded using the temporary fuel oil storage system, action statements for an inoperable but required Unit 3 EDG will require the shutdown of Unit 4 to Mode 5, and suspension of the Unit 3 refueling process. However, these statements have not been incorporated in the TS. Provide revised TS to include these statements."

FPL Response

FPL understands that if the 10 day interval is exceeded, both the 3A and 3B EDGs would be rendered inoperable. Given Unit 3 in Modes 5, 6, or defueled and Unit 4 in Mode 1, (the condition expected during the fuel oil storage tank cleaning and inspection), if the permanent Unit 3 common diesel fuel oil storage tank is not returned to service within 10 days of taking it out of service, Technical Specifications 3.8.1.1 Action b and 3.8.1.2 Action would apply to Unit 4 and Unit 3

respectively. These Actions require Unit 4 to be placed (ultimately) in Mode 5, and Unit 3 to immediately suspend all operations involving core alterations, positive reactivity changes, movement of irradiated fuel, or crane operations with loads over the fuel storage pool, as well as depressurization and venting of the reactor coolant system. Additional actions are required by the TS 3.8.1.2 Action, in Modes 5 and 6 for Unit 3 as well. To ensure these Actions are clearly specified, the proposed Technical Specification amendment is revised to add: " If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specifications 3.8.1.1 Action b and 3.8.1.2 Action would apply to Unit 4 and Unit 3 respectively."

NRC Request

"5.0 To maintain the operability of the EDG during TS Section 4.8.1.1.2i.1 surveillance of the storage tank, FPL proposed to install a temporary tank and associated pump to the auxiliary fill system for the Unit 3 EDG's. FPL stated that temporary storage system will consist of at least one tank with a minimum capacity of 7000 gallons. Additional tanks will store remaining fuel on site to maintain a minimum 38,000 gallon supply for the operable Unit 3 EDG. Provide the following information:

- a. Discuss in detail (i.e. numbers and locations of tanks, fire protection, procedures established for transferring fuel from tanks to tanks, etc.) how/where these 38,000 gallons of temporary fuel oil will be stored/located.
- b. Discuss the measure made to protect the components (i.e. piping, pumps, tanks, etc.) of this temporary fuel oil storage and transfer system from damage resulting from severe weather."

FPL Response

- a. FPL has performed detailed planning and review of fire protection and severe weather issues. The temporary fuel oil supply will be located outside the power block. Three temporary stationary supply tanks and one mobile tanker will be staged inside the protected area in the vicinity of the Nuclear Plant Central Receiving Facility. The relocation of the temporary fuel oil storage supply away from the Unit 3 EDG building eliminates the need for additional fire protection

requirements at the Unit 3 auxiliary fill station. Manual actions required to provide a 7 day supply of fuel to the EDGs can easily be accomplished in the 17 hours of EDG operation provided by the 3880 gallon capacity of a single EDG day tank and skid tank. The location of the temporary fuel oil supply inside the protected area security fence by the Central Receiving Facility provides multiple access routes to transfer fuel to the Unit 3 EDGs, and is in close proximity to a severe weather shelter for the mobile tanker.

Additionally, FPL plans to fill the Unit 4 EDG storage tanks with approximately 8600 gallons of fuel oil above that required for Unit 4 EDG operability. This extra capacity will be available to the Unit 3 EDGs prior to taking the permanent Unit 3 storage tank out of service. The Unit 4 tanks are contained within a Seismic Class 1 structure and protected by installed fire protection equipment. The Unit 4 fuel tanks will be filled to 39,000 gallons, which is just below the high level alarm. This gives a capacity of 4300 gallons in each tank above the Technical Specification minimum required volume of 34,700 gallons.

Combining the excess available fuel from the Unit 4 storage tanks and the nominal volume of one Unit 3 EDG's day and skid tanks gives a total of 12,480 gallons ($4300 \times 2 + 3880$) of available fuel to each of the Unit 3 EDGs. This allows a run time for a Unit 3 EDG of 55 hours (assuming fuel oil transfer from Unit 4) prior to reaching the Technical Specification minimum volume for the Unit 4 fuel oil storage tanks. Manual actions to replenish the Unit 4 or Unit 3 fuel oil storage tanks from the temporary storage tanks, via the mobile tanker, can easily be accomplished within the 55 hours. Procedures currently exist for the transfer of fuel from (1) the mobile tanker to the auxiliary fill station at the Unit 3 EDGs, and (2) from the Unit 4 EDG storage tanks to the Unit 3 day tanks by using either of the Unit 4 transfer pumps. The Unit 4 transfer pumps are powered from redundant Class 1E power supplies.

The temporary tanks will be located greater than fifty (50) feet from safety related or safe shutdown components or circuits. This does not produce any threat to fire protection or safe shutdown capability and therefore represents a configuration that is bounded by existing fire hazards analysis.

A dedicated mobile tanker staged inside the protected area to transfer fuel from the temporary storage tanks to the permanent day/skid tank system. The mobile tanker will have an integral transfer pump to facilitate movement of fuel to either of the two truck fills at the Unit 4 EDG building, or the day tank truck fills (auxiliary fill station) at the Unit 3 EDGs. One truck fill at the Unit 4 EDG building supplies fuel to the 4A and 4B storage tanks, the other truck fill at the Unit 4 EDG building can provide fuel directly to the Unit 3 day tanks. This fuel supply will provide continued operation for seven days. The temporary storage and transfer system will not meet requirements for Seismic Category I or Class 1E.

The capability to operate the Unit 3 EDGs for seven days during the tank cleaning evolution will be assured by an approved plant procedure that controls the following:

- A minimum fuel supply of 3880 gallons from each of the Unit 3 day and skid tanks. This provides 17 hours of operation.
 - The extra fuel supply of 8600 gallons in the two Unit 4 EDG tanks which will be transferred by using one of the installed Unit 4 transfer pumps. This provides an additional 38 hours of operation for the required Unit 3 EDG.
 - Three temporary tanks containing a minimum fuel supply of 38,000 gallons. This fuel supply will provide continued operation for 7 days.
- b. The proposed three temporary stationary tanks will be mobile trailer rectangular style tanks (43 feet long, 11 feet high, and 8 feet wide) having a capacity of approximately 19,000 gallons each. The tanks will be WORKSAFE™, or equivalent, Bi-Level steel tanks, with cross style internal bracing with an approximate empty weight of 21,000 lbs. The tanks when in place (disconnected from the transport tractor) would have a footprint area of approximately 43 feet x 8 feet. These trailer/tanks are provided with tie-down capability and will be secured by temporary measures to withstand winds of at least 120 mph. If the above tanks are not available when required, others will be substituted and evaluated to meet equivalent criteria. In the event of

a hurricane, the mobile tanker along with hoses, portable pumps, filters, etc., would be garaged inside the onsite Central Receiving Facility which is designed to withstand winds of at least 120 mph. The excess Unit 4 EDG fuel oil storage capacity and the available fuel in the Unit 3 EDG day tanks is contained in buildings designed to protect against hurricanes, earthquakes, and missiles, and therefore requires no additional protection from these hazards.

NRC Request

"6.0 TS Section 3.8.1.1.b requires that three separate and independent diesel generators to be operable, including:

1) For Unit 3, two (3A and 3B); for Unit 4, one (3A or 3B) each with:

- a)
- b)

2) For Unit 3, one (4A or 4B); for Unit 4, two (4A and 4B) each with:

- a)
- b)

Provide discussion to clarify how three separate and independent diesel generators will be available for each of the above two conditions."

FPL Response

From the existing Technical Specifications, it is understood that Unit 3 would be required to be in Modes 5, 6 or defueled to perform the tank cleaning task. The Unit 3 diesel fuel oil storage tank would not be removed from service for cleaning with Unit 3 in Modes 1 through 4 which applies to TS Section 3.8.1.1.b above. The tank would only be removed from service, with the use of a temporary storage system, with Unit 3 in Modes 5, 6, or defueled for which TS Section 3.8.1.2.b. applies. Accordingly, the proposed TS amendment is revised to state; " A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or

defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specifications 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively." Therefore, Technical Specification 3.8.1.1.b and 3.8.1.2.b are satisfied by having both the 4A and 4B EDGs operable in Modes 1 through 4 and either the 3A or 3B EDG operable with Unit 3 in Modes 5, 6 or defueled during the performance of Surveillance 4.8.1.1.2i.1 for up to 10 days.

