

B. Technical Specifications

The Technical Specifications contained in Appendix A and B, as revised through Amendment No. 152 are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

Appendix B, the Environmental Protection Plan (Non-Radiological), contains environmental conditions of the renewed license. If significant detrimental effects or evidence of irreversible damage are detected by the monitoring programs required by Appendix B of this license, FPL will provide the Commission with an analysis of the problem and plan of action to be taken subject to Commission approval to eliminate or significantly reduce the detrimental effects or damage.

C. Updated Final Safety Analysis Report

FPL's Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on March 28, 2003, describes certain future activities to be completed before the period of extended operation. FPL shall complete these activities no later than April 6, 2023, and shall notify

DEFINITIONS

DOSE EQUIVALENT I-131

- 1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Federal Guidance Report 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion."

\bar{E} - AVERAGE DISINTEGRATION ENERGY

- 1.11 \bar{E} shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

ENGINEERED SAFETY FEATURES RESPONSE TIME

- 1.12 The ENGINEERED SAFETY FEATURES RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays where applicable. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.

FREQUENCY NOTATION

- 1.13 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.1.

GASEOUS RADWASTE TREATMENT SYSTEM

- 1.14 A GASEOUS RADWASTE TREATMENT SYSTEM is any system designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

IDENTIFIED LEAKAGE

- 1.15 IDENTIFIED LEAKAGE shall be:
- a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or
 - b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
 - c. Reactor Coolant System leakage through a steam generator to the secondary system (primary-to-secondary leakage).

INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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

4.3.3.2 At least once per 18 months, each Control Room Isolation radiation monitoring instrumentation channel shall be demonstrated OPERABLE by verifying that the response time of the channel is within limits.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Pool Area					
i. Criticality and Ventilation System Isolation Monitor	4	*	≤ 20 mR/hr	10 ⁻¹ – 10 ⁴ mR/hr	22
b. Containment Isolation	3	****	≤ 90 mR/hr	1 – 10 ⁷ mR/hr	25
c. Containment Area – Hi Range	1	1, 2, 3 & 4	Not Applicable	1 - 10 ⁷ R/hr	27
d. Control Room Isolation	1 per intake	ALL MODES	≤ 320 cpm	10 ⁻⁷ – 10 ⁻² μCi/cc	26
2. PROCESS MONITORS					
a. Fuel Storage Pool Area Ventilation System					
i. Gaseous Activity	1	**	***	10 ⁻⁷ – 10 ⁻² μCi/cc	24
ii. Particulate Activity	1	**	***	1 – 10 ⁶ cpm	24
b. Containment					
i. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 ⁻⁷ – 10 ⁻² μCi/cc	23
ii. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	1 – 10 ⁶ cpm	23

* With fuel in the storage pool or building.

** During movement of recently irradiated fuel assemblies or during crane operations with loads over recently irradiated fuel assemblies in the spent fuel storage pool.

*** The Alarm/Trip Setpoints are determined and set in accordance with requirements of the Offsite Dose Calculation Manual.

**** During movement of recently irradiated fuel assemblies within containment.

CONTAINMENT SYSTEMS

3/4.6.6 SECONDARY CONTAINMENT

SHIELD BUILDING VENTILATION SYSTEM (SBVS)

LIMITING CONDITION FOR OPERATION

3.6.6.1 Two independent Shield Building Ventilation Systems shall be OPERABLE.

APPLICABILITY: At all times in MODES 1, 2, 3, and 4.

In addition, during movement of recently irradiated fuel assemblies or during crane operations with loads over recently irradiated fuel assemblies in the Spent Fuel Storage Pool in MODES 5 and 6.

ACTION:

- a. With the SBVS inoperable solely due to loss of the SBVS capability to provide design basis filtered air evacuation from the Spent Fuel Pool area, only ACTION-c is required. If the SBVS is inoperable for any other reason, concurrently implement ACTION-b and ACTION-c.
- b.
 - (1) With one SBVS inoperable in MODE 1, 2, 3, or 4, restore the inoperable system to OPERABLE status within 7 days; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - (2) With both SBVS inoperable in MODE 1, 2, 3, or 4, immediately enter LCO 3.0.3.
- c.
 - (1) With one SBVS inoperable in any MODE, restore the inoperable system to OPERABLE status within 7 days; otherwise, suspend movement of recently irradiated fuel assemblies within the Spent Fuel Storage Pool and crane operations with loads over recently irradiated fuel in the Spent Fuel Storage Pool.
 - (2) With both SBVS inoperable in any MODE, immediately suspend movement of recently irradiated fuel assemblies within the Spent Fuel Storage Pool and crane operations with loads over recently irradiated fuel in the Spent Fuel Storage Pool.

SURVEILLANCE REQUIREMENTS

4.6.6.1 Each Shield Building Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:
 1. Performing a visual examination of SBVS in accordance with ASME N510-1989.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

2. Performing airflow distribution to HEPA filters and charcoal adsorbers in accordance with ASME N510-1989. The distribution shall be $\pm 20\%$ of the average flow per unit.
- c. By performing required shield building ventilation system filter testing in accordance with the Ventilation Filter Testing Program.
 - d. At least once per 18 months by:
 1. Verifying that the system starts on a Unit 2 containment isolation signal and on a fuel pool high radiation signal.
 2. Verifying that the filter cooling makeup and cross connection valves can be manually opened.
 3. Verifying that each system produces a negative pressure of greater than or equal to 2.0 inches WG in the annulus within 99 seconds after a start signal.
 4. Verifying that each system achieves a negative pressure of greater than 0.125 inch WG in the fuel storage building after actuation of a fuel storage building high radiation test signal.

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PLANT SYSTEMS

3/4.7.8 ECCS AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 Two independent ECCS area ventilation systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one ECCS area ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

- 4.7.8 Each ECCS area ventilation system shall be demonstrated OPERABLE:
- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating from the control room and verifying that the system operates for at least 15 minutes.
 - b. By performing required ECCS area ventilation system filter testing in accordance with the Ventilation Filter Testing Program.
 - c. At least once per 18 months by verifying that the system starts on a safety injection actuation test signal.

ADMINISTRATIVE CONTROLS (Continued)

Leakage rate acceptance criteria are:

- a. Containment leakage rate acceptance criterion is $\leq 1.0 L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $< 0.60 L_a$ for the Type B and C tests, $\leq 0.75 L_a$ for Type A tests, and $\leq 0.096 L_a$ for secondary containment bypass leakage paths.
- b. Air lock testing acceptance criteria are:
 - 1) Overall air lock leakage is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 - 2) For each door seal, leakage rate is $< 0.01 L_a$ when pressurized to $\geq P_a$.

The provisions of T.S. 4.0.2 do not apply to test frequencies in the Containment Leak Rate Testing Program.

The provisions for T.S. 4.0.3 are applicable to the Containment Leak Rate Testing Program.

i. Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2 and 3 components (pumps and valves). The program shall include the following:

- a. Testing frequencies specified in Section XI of ASME Boiler and Pressure Vessel Code* and applicable addenda as follows:

ASME Boiler and Pressure Vessel Code* and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice testing activities.
- c. The provisions of Specification 4.0.3 are applicable to inservice testing activities; and
- d. Nothing in the ASME Boiler and Pressure Vessel Code* shall be construed to supersede the requirements of any technical specification.

* Where ASME Boiler and Pressure Vessel Code is referenced it also refers to the applicable portions of ASME/ANSI OM-Code, "Operation and Maintenance of Nuclear Power Plants," with applicable addenda, to the extent it is referenced in the Code.

ADMINISTRATIVE CONTROLS (continued)

j. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
2. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - a. a change in the TS incorporated in the license; or
 - b. a change to the updated UFSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
3. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.
4. Proposed changes that meet the criteria of Specification 6.8.4.j.2.a or 6.8.4.j.2.b, above, shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

k. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 3.

1. Demonstrate for each of the ESF systems that an in-place test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass less than the value specified below when tested in accordance with ASME N510-1989 at the system flowrate specified below.

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>Flowrate</u>
Control Room Emergency Air Cleanup	≤ 0.05%	2000 ± 200 cfm
Shield Building Ventilation System	≤ 0.05%	6000 ± 600 cfm
ECCS Area Ventilation System	≤ 0.05%	30,000 ± 3000 cfm

2. Demonstrate for each of the ESF systems that an in-place test of the charcoal adsorber shows a penetration and system bypass less than the value specified below when tested in accordance with ASME N510-1989 at the system flowrate specified below.

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>Flowrate</u>
Control Room Emergency Air Cleanup	≤ 0.05%	2000 ± 200 cfm
Shield Building Ventilation System	≤ 0.05%	6000 ± 600 cfm
ECCS Area Ventilation System	≤ 0.05%	30,000 ± 3000 cfm

ADMINISTRATIVE CONTROLS (continued)

k. Ventilation Filter Testing Program (VFTP) (continued)

3. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 3, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and the relative humidity specified below.

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
Control Room Emergency Air Cleanup	≤ 0.175%	95%
Shield Building Ventilation System	≤ 2.5%	95%
ECCS Area Ventilation System	≤ 2.5%	95%

4. For the Control Room Emergency Air Cleanup System and the ECCS Area Ventilation System, demonstrate that the pressure drop across the combined HEPA filters and charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below. For the Shield Building Ventilation System, demonstrate that the pressure drop across the combined demisters, electric heaters, HEPA filters and charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below.

<u>ESF Ventilation System</u>	<u>Delta P</u>	<u>Flowrate</u>
Control Room Emergency Air Cleanup	< 7.4" W.G.	2000 ± 200 cfm
Shield Building Ventilation System	< 8.5" W.G.	6000 ± 600 cfm
ECCS Area Ventilation System	< 4.35" W.G.	30,000 ± 3000 cfm

5. At least once per 18 months, demonstrate that the heaters for each of the ESF systems dissipate the value specified below when tested in accordance with ASME N510-1989.

<u>ESF Ventilation System</u>	<u>Wattage</u>
Shield Building Ventilation System	
Main Heaters	30 ± 3 kW
Auxiliary Heaters	1.5 ± 0.25 kW

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

l. Steam Generator (SG) Program

1. A SG Program shall be established and implemented for the replacement SGs to ensure that SG tube integrity is maintained. In addition, the SG Program shall include the following provisions:
- a. Provisions for condition monitoring assessments. Condition monitoring assessment means an evaluation of the "as found" condition of the tubing with respect to the performance criteria for structural integrity and accident induced leakage. The "as found" condition refers to the condition of the tubing during an SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging of tubes. Condition monitoring assessments shall be conducted during each outage during which the SG tubes are inspected or plugged to confirm that the performance criteria are being met.

ADMINISTRATIVE CONTROLS (continued)

- I. Steam Generator (SG) Program (continued)
 1. (continued)
 - b. Performance criteria for SG tube integrity. SG tube integrity shall be maintained by meeting the performance criteria for tube structural integrity, accident induced leakage, and operational leakage.
 1. Structural integrity performance criterion: All in-service SG tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cooldown and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.
 2. Accident induced leakage performance criterion: The primary-to-secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 0.5 gallons per minute total through all SGs and 0.25 gallons per minute through any one SG.
 3. The operational leakage performance criterion is specified in LCO 3.4.6.2.c, "Reactor Coolant System Operational Leakage."