of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

#### 2.C.(1) Maximum Power Level

Florida Power Corporation is authorized to operate the facility at a steady state reactor core power level not in excess of 2568 Megawatts (100 percent of rated core power level).

#### 2.C.(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 223, are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

The Surveillance Requirements contained in the Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment 149. The Surveillance Requirements shall be successfully demonstrated prior to the time and condition specified below for each.

- a) SR 3.3.8.2.b shall be successfully demonstrated prior to entering MODE 4 on the first plant start-up following Refuel Outage 9.
- b) SR 3.3.11.2, Function 2, shall be successfully demonstrated no later than 31 days following the implementation date of the ITS.
- c) SR3.3.17.1, Functions 1, 2, 6, 10, 14, & 17 shall be successfully demonstrated no later than 31 days following the implementation date of the ITS.
- d) SR3.3.17.2, Function 10 shall be successfully demonstrated prior to entering MODE 3 on the first plant start-up following Refuel Outage 9.
- e) SR 3.6.1.2 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.
- f) SR 3.7.12.2 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.
- g) SR 3.8.1.10 shall be successfully demonstrated prior to entering MODE 2 on the first plant start-up following Refuel Outage 9.
- h) SR 3.8.3.3 shall be successfully demonstrated prior to entering MODE 4 on the first plant start-up following Refuel Outage 9.

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LEAKAGE (continued)	3. Reactor Coolant System (RCS) LEAKAGE through a steam generator to the secondary system (primary to secondary LEAKAGE).
	b. <u>Unidentified LEAKAGE</u>
	All LEAKAGE that is not identified LEAKAGE.
	c. Pressure Boundary LEAKAGE
	LEAKAGE (except primary to secondary LEAKAGE) through a non-isolable fault in an RCS component body, pipe wall, or vessel wall.
MODE	A MODE shall correspond to any one inclusive combination of core reactivity condition, power level, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1.
NUCLEAR HEAT FLUX HOT CHANNEL FACTOR ( $F_q(Z)$ )	F <sub>Q</sub> (Z) shall be the maximum local linear power density in the core divided by the core average fuel rod linear power density, assuming nominal fuel pellet and fuel rod dimensions.
NUCLEAR ENTHALPY RISE	$F_{\Delta H}^{N}$ shall be the ratio of the integral of linear
HOT CHANNEL FACTOR $(F_{\Delta H}^{N})$	power along the fuel rod on which minimum
	departure from nucleate boiling ratio occurs to the average fuel rod power.
OPERABLE-OPERABILITY	A system, subsystem, train, component, or device shall be OPERABLE when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication and other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).
PHYSICS TESTS	PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation.

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# 3.4 REACTOR COOLANT SYSTEM (RCS)

## 3.4.12 RCS Operational LEAKAGE

- LCO 3.4.12 RCS operational LEAKAGE shall be limited to:
  - a. No pressure boundary LEAKAGE;
  - b. 1 gpm unidentified LEAKAGE;
  - c. 10 gpm identified LEAKAGE; and
  - d. 150 gpd of primary to secondary LEAKAGE through any one steam generator (OTSG).

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

#### ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
Α.	RCS operational LEAKAGE not within limits for reasons other than pressure boundary LEAKAGE or primary to secondary LEAKAGE.	A.1	Reduce LEAKAGE to within limits.	4 hours
в.	Required Action and associated Completion Time not met.	B.1 <u>AND</u>	Be in MODE 3.	6 hours
	<u>OR</u>	B.2	Be in MODE 5.	36 hours
	Pressure boundary LEAKAGE exists.			
	<u>OR</u>			
	Primary to secondary LEAKAGE not within limit.			

SURVEILLANCE REQUIREMENTS

SURVEILLANCE			FREQUENCY
SR	3.4.12.1	<ul> <li>Not required to be performed in MODE 4. Not required in MODE 3 until 12 hours of steady state operation.</li> <li>Not applicable to primary to secondary LEAKAGE.</li> <li>Verify RCS operational LEAKAGE is within limits by performance of RCS water inventory balance.</li> </ul>	72 hours
SR	3.4.12.2	<pre>NOTENOTENOTENOTENOTENOTE</pre>	72 hours

# 3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.16 Steam Generator (OTSG) Tube Integrity

LCO 3.4.16 OTSG tube integrity shall be maintained.

<u>AND</u>

All OTSG tubes satisfying the tube repair criteria shall be plugged or repaired in accordance with the Steam Generator Program.

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

ACTIONS

Separate Condition entry is allowed for each OTSG tube.

CONDITION		REQUIRED ACTION		COMPLETION TIME
Α.	One or more OTSG tubes satisfying the tube repair criteria and not plugged or repaired in accordance with the Steam Generator Program.	A.1 <u>AND</u>	Verify tube integrity of the affected tube(s) is maintained until the next refueling outage or OTSG tube inspection.	7 days
		A.2	Plug or repair the affected tube(s) in accordance with the Steam Generator Program.	Prior to entering MODE 4 following the next refueling outage or OTSG tube inspection
B. R a T	. Required Action and associated Completion Time of Condition A not met.	B.1 AND	Be in MODE 3.	6 hours
		B.2	Be in MODE 5.	36 hours
	<u>OR</u>			
	OTSG tube integrity not maintained.			

SURVEILLANCE REQUIREMENTS

		FREQUENCY	
SR	3.4.16.1	Verify OTSG tube integrity in accordance with the Steam Generator Program.	In accordance with the Steam Generator Program
SR	3.4.16.2	Verify that each inspected OTSG tube that satisfies the tube repair criteria is plugged or repaired in accordance with the Steam Generator Program.	Prior to entering MODE 4 following a OTSG tube inspection

#### 5.6.2.10 Steam Generator (OTSG) Program

A Steam Generator Program shall be established and implemented to ensure that OTSG tube integrity is maintained. In addition, the Steam Generator 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 OTSG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging or repair of tubes. Condition monitoring assessments shall be conducted during each outage during which the OTSG tubes are inspected, plugged, or repaired to confirm that the performance criteria are being met.
- b. Performance criteria for OTSG tube integrity. OTSG tube integrity shall be maintained by meeting the performance criteria for tube structural integrity, accident induced leakage, and operational LEAKAGE.
  - Structural integrity performance criterion: All in-1. service steam generator tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down 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-tosecondary 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. (continued)

# 5.6.2.10 OTSG Program (continued)

- 2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than an OTSG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all OTSGs and leakage rate for an individual OTSG. Leakage is not to exceed one gallon per minute per OTSG.
- 3. The operational LEAKAGE performance criterion is specified in LCO 3.4.12, "RCS Operational LEAKAGE."
- c. Provisions for OTSG tube repair criteria. Tubes shall be plugged if the sleeved region of a tube is found by inservice inspection to contain flaws in the (a) sleeve or (b) the pressure boundary portion of the original tube wall in the sleeve/tube assembly.

The non-sleeved region of a tube found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged or repaired except if the flaws are permitted to remain in service through application of an alternate tube repair criteria discussed below.

The following alternate tube repair criteria may be applied as an alternative to the 40% depth based criteria:

1. Pit-like Intergranular Attack (IGA) indication means a bobbin coil indication confirmed by Motorized Rotating Pancake Coil (MRPC) or other qualified inspection techniques to have a volumetric, pit-like morphology characteristic of IGA. Inservice tubes with pit-like IGA indications in the first span of the B OTSG are acceptable provided the depth of the indication is less than 40% of the nominal tube wall thickness. Inservice tubes with pit-like IGA indications in the first span of the B OTSG with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged.

### 5.6.2.10 OTSG Program (continued)

2. Tube End Cracks (TEC) are those crack-like eddy current indications. circumferentially and/or axially oriented, that are within the Inconel clad region of the primary face of the upper and lower tubesheets, but do not extend into the carbon steel-to Inconel clad interface. Tubes with axially oriented TEC may be left in-service using the method described in Topical Report BAW-2346P, Revision 0, provided the combined projected leakage from all sources of primary-to-secondary leakage, including axial TEC indications left in-service, does not exceed the Main Steam Line Break (MSLB) accident leakage limit of one gallon per minute, minus 150 gallons per day, per OTSG. The contribution to MSLB leakage rates from TEC indications shall be determined utilizing the methodology in Addendum B dated August 10, 2005 to Topical Report BAW-2346P, Revision 0. The projection of TEC leakage that may develop during the next operating cycle shall be determined using the methodology in Addendum C dated August 30, 2005 to Topical Report BAW-2346P. Revision 0.

Tubes identified with TEC that are allowed to remain in service under the alternate repair criteria will be added to the existing list of tubes in the OTSG Inservice Inspection Surveillance Procedure. The inspection data for tubes with axially oriented TEC indications shall be compared to the previous inspection data to monitor the indications for growth.

Tubes with crack-like indications within the carbon steel portion of the tubesheet, circumferentially oriented TEC, or volumetric indications within the Inconel clad region of the tubesheet shall be repaired using the appropriate method from 5.6.2.10.f or removed from service by plugging the tube.

# 5.6.2.10 OTSG Program (continued)

- d. Provisions for OTSG tube inspections. Periodic OTSG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-totubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In tubes repaired by sleeving, the portion of the original tube wall between the sleeve's joints is not an area requiring re-inspection. In addition to meeting the requirements of d.1 through d.8 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that OTSG tube integrity is maintained until the next OTSG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.
  - 1. Inspect 100% of the tubes in each OTSG during the first refueling outage following OTSG replacement.
  - Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the OTSGs. No OTSG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.
  - 3. If crack indications are found in any OTSG tube, then the next inspection for each OTSG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.

### 5.6.2.10 OTSG Program (continued)

4. Inservice tubes with pit-like IGA indications in the first span of the B OTSG must be inspected with bobbin and Motorized Rotating Pancake Coil (MRPC) eddy current techniques from the lower tube sheet secondary face to the bottom of the first tube support plate during each inservice inspection of the B OTSG.

Inservice tubes with pit-like IGA indications in the "B" OTSG first span shall be monitored for growth of these indications by using a test probe equivalent to the high frequency bobbin probe used in the 1997 inspection. The indicated percentage through-wall value from the current inspection shall be compared to the indicated percentage through-wall value from the 1997 inspection.

- 5. Tubes in-service with axially oriented tube end cracks (TEC) are identified in the OTSG Inservice Inspection Surveillance Procedure. The portion of the tube with the axial TEC must be inspected using the motorized rotating coil eddy current technique every 24 effective full power months or one refueling outage, whichever is less.
- 6. If the plant is required to shut down due to primary-tosecondary leakage and the cause is determined to be degradation of the TEC portion of the tubes, 100% of the tubes with TEC in that OTSG shall be examined in the location of the TEC. If more than 1% of the examined tubes satisfy the tube repair criteria, 100% of the tubes with TEC in the other OTSG shall be examined in the location of the TEC.
- 7. The repair roll in each tube will be inspected every 24 effective full power months or one refueling outage (whichever is less) while the tube with a repair roll is in service.
- 8. If the plant is required to shut down due to primary-tosecondary leakage and the cause is determined to be a flaw in a repair roll, 100% of the repair rolls in both OTSGs shall be examined.

#### 5.6.2.10 OTSG Program (continued)

- e. Provisions for monitoring operational primary to secondary LEAKAGE.
- f. Provisions for OTSG tube repair methods. Steam generator tube repair methods shall provide the means to reestablish the RCS pressure boundary integrity of OTSG tubes without removing the tube from service. For the purposes of these Specifications, tube plugging is not a repair. All acceptable tube repair methods are listed below.
  - Sleeve installation in accordance with the B&W process (or method) described in report BAW-2120P. No more than five thousand sleeves may be installed in each OTSG.
  - 2. Installation of repair rolls in the upper and lower tubesheets in accordance with BAW-2303P, Revision 4. The repair process (single, overlapping, or multiple roll) may be performed in each tube. The repair roll area will be examined using eddy-current methods following installation. The repair roll must be free of flaws for the repair to be considered acceptable. If the repair roll is unacceptable, the tube must be repaired or plugged.

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### 5.7 Reporting Requirements

- 5.7.1.2 Not Used
- 5.7.2 <u>Special Reports</u>

Special Reports shall be submitted in accordance with 10 CFR 50.4 within the time period specified for each report.

The following Special Reports shall be submitted:

- a. When a Special Report is required by Condition B or F of LCO 3.3.17, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.
- b. Any abnormal degradation of the containment structure found during the inspection performed in accordance with ITS 5.6.2.8 shall be reported to the NRC within 30 days of the current surveillance completion. The abnormal degradation shall be defined as findings such as delamination of the dome concrete, widespread corrosion of the liner plate, corrosion of prestressing elements (wires, strands, bars) or anchorage components extending to more than two tendons and group tendons force trends not meeting the requirements of 10CFR50.55a(b)(2)(ix)(B). The report shall include the description of degradation, operability determination, root cause determination and the corrective actions.
- c. A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with the Specification 5.6.2.10, Steam Generator (OTSG) Program. The report shall include:
  - 1. The scope of inspections performed on each OTSG,
  - 2. Active degradation mechanisms found,
  - 3. Nondestructive examination techniques utilized for each degradation mechanism,
  - 4. Location, orientation (if linear), and measured sizes (if available) of service induced indications,

## 5.7 Reporting Requirements

# 5.7.2 Special Reports (continued)

- 5. Number of tubes plugged or repaired during the inspection outage for each active degradation mechanism,
- 6. Total number and percentage of tubes plugged or repaired to date,
- 7. The results of condition monitoring, including the results of tube pulls and in-situ testing,
- 8. The effective plugging percentage for all plugging and tube repairs in each OTSG,
- 9. Repair method utilized and the number of tubes repaired by each repair method,
- 10. Location, bobbin coil amplitude, and axial and circumferential extent (if determined) for each first span IGA indication, and an assessment of growth for indications in the first span of OTSG B, and
- 11. Number of as-found and as-left tubes with TEC indications, number of as-found and as-left TEC indications, the number of as-found and as-left TEC indications as a function of tubesheet radius. the asfound, as-left, probability of detection and new TEC leakage for upper and lower tubesheet indications. The projected accident leakage and an assessment of growth for TEC indications will be provided. An assessment of the adequacy of the predictive methodology in Addendum C to Topical Report BAW-2346P, Revision 0, including assessing the distribution of indications found in each OTSG to ensure the assumption regarding the similarity of the distribution of indications remain consistent from one cycle to the next and that the assumption of a linear increase in leak rate remain valid. Corrective actions in the event that the assessment indicates the assumptions can not be fully supported.