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12. CONDUCT OF OPERATIONS

12.1 Organization and Responsibility

This section covered the positions and personnel at the time of initial plant startup and operation. This information can be found in the original docketed FSAR and this is also addressed in the plant operating license (Technical Specifications).

12.2 Training

This section covered the training program at the time of initial plant startup and operation. This information can be found in the original docketed FSAR and this is also addressed in the Technical Specifications.

12.3 Procedures

The operating procedures for startup, normal operations, and anticipated emergency operating conditions is addressed in the original docketed FSAR and current requirements indicated in the Technical Specifications and in this chapter. The Emergency Plan in effect for Turkey Point is issued as a separate document.

12.4 Records

The procedure for maintaining plant operating, maintenance, QA, personnel, training, and instrumentation and control record is addressed in the original docketed FSAR and current requirements indicated in the Technical Specifications and in this chapter.

12.5 Administrative Control

The necessary administrative procedures are addressed in the original docketed FSAR and current requirements indicated in the Technical Specifications and in this chapter.

12.6 Plant Security Plan

Turkey Point maintains a Plant Security Plan and is issued as a separate document.

The FPL Quality Assurance Program is described by FPL Quality Assurance Topical Report (QATR) FPL-1. This corporate level document was supplemented by UFSAR Sections 12.7 through 12.10 which contained plant specific details of the FPL QA program related to Administrative Controls. These sections were originally located in the Technical Specifications and were relocated to the UFSAR by Technical Specification Amendment No. 201/195 (NRC Safety Evaluation report related to Amendment No. 201/195, dated October 6, 1999). These sections are subject to the regulatory requirements of 10 CFR 50.54 (a) with respect to changes to the approved QA program description. Sections 12.7, 12.8, and 12.9 were subsequently relocated from the UFSAR and placed into the QATR in accordance with the QATR Change Management Plan, NRC SER dated December 29, 2006, and Condition Report 2006-12055. C23

12.7 Deleted

12.8 Deleted

12.9 Deleted

12.10 Process Control Program (PCP)

12.10.1 The Process Control Program (PCP) shall contain the current formulas, sampling, analyses, tests and determinations to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

12.10.2 Licensee-initiated changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by the QTAR. This documentation shall contain: C23

1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

2) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

b. Shall become effective after review and acceptance by the PNSC and the approval of the Plant Manager.

12.11 Emergency Planning

The Emergency Plan describes Florida Power & Light Company's plans for responding to emergencies that may develop at the Turkey Point Plant. The plan has been prepared to meet the requirements of 10 CFR 50.47(b), 10 CFR 50.72, and 10 CFR50 Appendix E. The purpose of this plan is to define and assign authority and responsibility in order to protect the health and safety of the public and plant personnel.

This plan applies to all plant emergencies which have resulted in, or which increase the risk of the accidental release of radioactive materials.

The Emergency Plan defines emergency conditions and delineates the responsibilities and duties of the FPL Emergency Response Organization. Associated with this Emergency Plan are implementing procedures which provide a detailed source of pertinent information and data required by the response organization during an emergency.

An Onsite Technical Support Center (TSC), an Onsite Operations Support Center (OSC), and an Offsite Emergency Operations Facility (EOF) have been established. Emergency support facilities meet the requirements of NUREG 0737, Item III.A.1.2 The Offsite Emergency Operations Facility (EOF) is located at the FPL General Office Building (9250 W. Flagler in Miami). This facility is approximately 25 miles north of Turkey Point station. The Technical Support Center is located in a separate building at the back of the property near the Circulating Water Inlet Bay. The Operations Support Center is located in the Maintenance Building.

12.12 Relocated Technical Specifications Requirements

This section of the UFSAR contains requirements (limiting conditions for operation, applicability, action statements, and surveillance requirements) that have been relocated from the Technical Specifications. License amendments approved removal of these requirements from the Technical Specifications on the basis that they do not meet the criteria in 10 CFR 50.36 for inclusion in the Technical Specifications. These relocated requirements are controlled under 10 CFR 50.59. The frequencies of the surveillance requirements included in this section may be extended up to 25% of the specified time interval. C28

12.12.1 Communications

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity conditions during CORE ALTERATIONS.

Limiting Condition for Operation:

Direct communications shall be maintained between the control room and personnel at the refueling station.

Applicability:

During CORE ALERTATIONS

Action:

When direct communications between the control room and personnel at the refueling station cannot be maintained, suspend all CORE ALTERATIONS. C28

Surveillance Requirements:

Direct communications between the control room and personnel at the refueling station shall be demonstrated within 1 hour prior to the start of and in accordance with the Surveillance Frequency Control Program during CORE ALTERATIONS.

12.12.2 Manipulator Crane

The requirements for the manipulator cranes ensure that: (1) manipulator cranes will be used for movement of drive rods and fuel assemblies, (2) each crane has sufficient load capacity to lift a drive rod or fuel assembly, and (3) the core internals and reactor vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

The requirement that the auxiliary hoist load indicator be used to prevent lifting excessive loads will require a manual action. The auxiliary hoist load indicator does not include any automatic mechanical or electrical interlocks that prevent lifting loads in excess of 600 pounds.

Limiting Condition for Operation:

The manipulator crane and auxiliary hoist shall be used for movement of drive rods or fuel assemblies and shall be OPERABLE with:

a. The manipulator crane used for movement of fuel assemblies having:

   1) A minimum capacity of 2750 pounds, and

   2) An overload cutoff limit less than or equal to 2700 pounds.

b. The auxiliary hoist used for latching and unlatching drive rods having:

   1) A minimum capacity of 610 pounds, and

   2) A load indicator which shall be used to prevent lifting loads in excess of 600 pounds.

Applicability:

During movement of drive rods or fuel assemblies within the reactor vessel.

C28

Action:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of drive rods and fuel assemblies within the reactor vessel.

Surveillance Requirements:

1. At least once each refueling, each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 2750 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2700 pounds.

2. At least once each refueling, each auxiliary hoist and associated load indicator used for movement of drive rods within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 610 pounds.

12.12.3 Standby Feedwater System

The purpose of this specification and the supporting surveillance requirements is to assure functionality of the non-safety grade Standby Steam Generator Feedwater System. The Standby Steam Generator Feedwater System consists of commercial grade components designed and constructed to industry and FPL standards of this class of equipment located in the outdoor plant environment typical of FPL facilities system wide. The system is expected to perform with high reliability, i.e., comparable to that typically achieved with this class of equipment. FPL intends to maintain the system in good operating condition with regard to structures, supports, component maintenance, calibrations, etc.

The function of the Standby Feedwater System for FUNCTIONALITY determinations is that it can be used as a backup to the Auxiliary Feedwater (AFW) System in the event the AFW System does NOT function properly. The system would be manually started, aligned, and controlled by the operator when needed.

The A pump is electric-driven and is powered from the non-safety related C bus. In the event of a coincident loss of offsite power, the B pump is diesel driven and can be started and operated independent of the availability of on-site or off-site power. C30

A supply of 77,000 gallons from the Demineralized Water Storage Tank for the Standby Steam Generator Feedwater Pumps is sufficient water to remove decay heat from the reactor for six (6) hours for a single unit or two (2) hours for two units. This was the basis used for requiring 77,000 gallons of water in the non-safety grade Demineralized Water Storage Tank and is judged to provide sufficient time for restoring the AFW System or establishing make-up to the Demineralized Water Storage Tank.

The minimum indicated volume (145,000 gallons) consists of an allowance for level indication instrument uncertainties (approximately 15,000 gallons) for water deemed unusable because of tank discharge line location and vortex formation (approximately 50,200 gallons) and the minimum usable volume (77,000 gallons). The minimum indicated volume corresponds to a water level of 9.2 feet in the Demineralized Water Storage Tank.

The Standby Steam Generator Feedwater Pumps are NOT designed to NRC requirements applicable to Auxiliary Feedwater Systems and NOT required to satisfy Design Basis Events requirements.

Adequate demineralized water for the Standby Steam Generator Feedwater system will be verified in accordance with the Surveillance Requirements. The Demineralized Water Storage Tank provides a source of water to several systems and therefore, requires daily verification.

The Standby Steam Generator Feedwater Pumps will be verified FUNCTIONAL by starting and operating them in the recirculation mode. Also, each Standby Steam Generator Feedwater Pump will be started and aligned to provide flow to the nuclear unit's steam generators. The surveillance frequencies are controlled under the Surveillance Requirements of UFSAR Section 12.12.3.

This surveillance regimen will thus demonstrate functionality of the entire flow path, backup non-safety grade power supply and pump associated with a unit at least each refueling outage. The pump, motor driver, and normal power supply availability would typically be demonstrated by operation of the pumps in the recirculation mode monthly on a staggered test basis. C30

The diesel engine driver for the B Standby Steam Generator Feedwater Pump will be periodically verified functional. In addition, an inspection will be performed on the diesel in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the diesel's class of service. The surveillance frequencies are controlled under the Surveillance Requirements of UFSAR Section 12.12.3. This inspection will ensure that the diesel driven pump is maintained in good operating condition consistent with FPL's overall objectives for system reliability.

Limiting Condition for Operation:

Two Standby Steam Generator Feedwater Pumps shall be FUNCTIONAL* and at least 145,000 gallons of water (indicated volume), shall be in the Demineralized Water Storage Tank.**

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*These pumps do not require plant safety related emergency power sources for functionality and the flowpath is normally isolated.

**The Demineralized Water Storage Tank is non-safety grade.

Applicability:

MODES 1, 2 and 3

Action:

a. With one Standby Steam Generator Feedwater Pump non-functional, restore the non-functional pump to available status within 30 days.

b. With both Standby Steam Generator Feedwater Pumps non-functional, restore at least one pump to FUNCTIONAL status within 24 hours.

c. With less than 145,000 gallons of water indicated in the Demineralized Water Storage Tank restore the available volume to at least 145,000 gallons indicated within 24 hours. C30

Surveillance Requirements:

1. The Demineralized Water Storage Tank water volume shall be determined to be within limits at least once per 24 hours.

2. At least monthly verify the standby feedwater pumps are FUNCTIONAL by testing in recirculation on a STAGGERED TEST BASIS.

3. At least once per 18 months, verify functionality of the respective standby steam generator feedwater pump by starting each pump and providing feedwater to the steam generators.

4. The diesel engine for the diesel-driven Standby Steam Generator Feedwater Pump shall be demonstrated FUNCTIONAL:

    a. At least once per 31 days, by testing with the associated standby steam generator feedwater pump in recirculation.

    b. At least once per 18 months, by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer’s recommendations for the class of service.

12.12.4 Explosive Gas Monitoring Instrumentation

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GAS DECAY TANK SYSTEM. The FUNCTIONALITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

Limiting Condition for Operation:

The explosive gas monitoring instrumentation channels shown in UFSAR Section 12.12.4, Table 12.12.4-1 shall be FUNCTIONAL with their Alarm/Trip Setpoints set to ensure that the limits of UFSAR Section 12.12.5 are not exceeded. C30

Applicability:

As shown in UFSAR Section 12.12.4, Table 12.12.4-1

Action:

a. With an explosive gas monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, declare the channel out of service or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of explosive gas monitoring instrumentation channels FUNCTIONAL, take the ACTION shown in UFSAR Section 12.12.4, Table 12.12.4-1. Restore the non-functional instrumentation to FUNCTIONAL status within 30 days.

Surveillance Requirements:

Each explosive gas monitoring instrumentation channel shall be demonstrated FUNCTIONAL by performance of the CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in UFSAR Section 12.12.4, Table 12.12.4-2.

TABLE 12.12.4-1
EXPLOSIVE GAS MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS FUNCTIONAL	APPLICABILIY	ACTIONS
1. WASTE GAS DISPOSAL SYSTEM (Explosive Gas Monitoring System)			
a. Hydrogen and Oxygen Monitors	1	*	1

C30

TABLE NOTATION

* During GAS DECAY TANK SYSTEM operation.

ACTION 1 - With the number of channels FUNCTIONAL less than required by the Minimum Channels FUNCTIONAL requirement, operation of the GAS DECAY TANK SYSTEM may continue provided that grab samples are collected and analyzed for hydrogen and oxygen concentration at least a) once per 8 hours during degassing operations, and b) once per day during other operations.

TABLE 12.12.4-2
EXPLOSIVE GAS MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. GAS DECAY TANK SYSTEM (Explosive Gas Monitoring System)					
a. Hydrogen and Oxygen Monitors	24 hours	N.A.	92 days	31 days	*

C30

TABLE NOTATION

* During GAS DECAY TANK SYSTEM operation.

(1) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

a. One volume percent hydrogen, balance nitrogen, and

b. Four volume percent hydrogen, balance nitrogen.

(2) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

a. One volume percent oxygen, balance nitrogen, and

b. Four volume percent oxygen, balance nitrogen.

12.12.5 Explosive Gas Mixture

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the Gas Decay Tank System (as measured in the in-service Gas Decay Tank) is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

Limiting Condition for Operation:

The concentration of oxygen in the GAS DECAY TANK SYSTEM (as measured in the in-service gas decay tank) shall be limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume.

Applicability:

At all times.

Action:

a. With the concentration of oxygen in the in-service gas decay tank greater than 2% by volume but less than or equal to 4% by volume, reduce the oxygen concentration to the above limits within 48 hours. C30

b. With the concentration of oxygen in the in-service gas decay tank greater than 4% by volume and the hydrogen concentration greater than 4% by volume, immediately suspend all additions of waste gases to the gas decay tanks and reduce the concentration of oxygen to less than or equal to 4% by volume, then take ACTION a., above.

Surveillance Requirements:

The concentrations of hydrogen and oxygen in the in-service gas decay tanks shall be determined to be within the above limits by continuously* monitoring the waste gases in the in-service gas decay tank with the hydrogen and oxygen monitors required FUNCTIONAL by UFSAR Section 12.12.4, Table 12.12.4-1.

_____

*When continuous monitoring capability is non-functional, UFSAR Section 12.12.4, Table 12.12.4-1 allows the use of grab samples.

12.12.6 Gas Decay Tanks

The tanks included in this specification are those tanks for which the quantity of radioactivity contained is NOT limited directly or indirectly by another Technical Specification. Restricting the quantity of radioactivity contained in each Gas Decay Tank provides assurance that in the event of an uncontrolled release of the tank's contents, the resulting whole body exposure to a MEMBER OF THE PUBLIC at the nearest SITE BOUNDARY will NOT exceed 0.1 rem.

Limiting Condition for Operation:

The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 70,000 Curies of noble gases (DOSE EQUIVALENT Xe-133).

Applicability:

At all times.

Action:

With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Annual Radioactive Effluent Release Report, pursuant to Technical Specification 6.9.1.4. C30

Surveillance Requirements:

The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank and the Reactor Coolant System total activity exceeds the limit of Technical Specification 3.4.8.