

Re: Turkey Point Units 3 and 4  
Docket No. 50-250 and 50-251  
Proposed Amendment to Facility  
Operating Licenses DPR-31 and DPR-41

PROPOSED CHANGES

Page 1-1

Definition of Operable is expanded to include all necessary attendant instrumentation, controls, power sources, etc.

Pages 3.0-1, B3.0-1 and B3.0-2

Heading 3.0 is administratively moved from page 3.1-1, and sections 3.0.1 and 3.0.2 and corresponding bases are added to clarify the applicability of the LCO and what action is required.

Page 3.1-1

Administrative change to delete heading 3.0 from page 3.1-1.

Page 3.3-1

A sentence has been added to show that Specification 3.0.1 applies to 3.3.1.

Page 3.4-2

A sentence has been added to show that Specification 3.0.1 applies to 3.4.1.b.

Page 3.4-3

A sentence has been added to show that Specification 3.0.1 applies to 3.4.2.b.

Page 3.4-4

A sentence has been added to show that Specification 3.0.1 applies to 3.4.3.b.

Page 3.4-5

A sentence has been added to show that Specification 3.0.1 applies to 3.4.4.b.

Page 3.4-6

A sentence has been added to show that specification 3.0.1 applies to 3.4.5.b.

Page 3.5-1

A sentence has been added to show that Specification 3.0.1 applies to Tables 3.5-1 through 3.5-3.

Page 3.6-2

A sentence has been added to show that Specification 3.0.1 applies to 3.6.d.

Page 3.7-1

AEC is changed to NRC.

Page 3.7-2

AEC is changed to NRC.

A sentence was added to show that Specification 3.0.1 applies to 3.7.2.

Page 3.13-1

A sentence has been added to show that Specification 3.0.1 applies to 3.13.3.

Page 3.15-1

An administrative error was corrected by changing 3.14.1 to 3.15.1.

## 1.0 DEFINITIONS

The definitions used for these specifications follow.

### 1.1 SAFETY LIMITS

Safety limits are the necessary quantitative restrictions placed upon those process variables that must be controlled in order to reasonably protect the integrity of certain of the physical barriers which guard against the uncontrolled release of radioactivity. If any safety limit is exceeded, the associated reactor shall be shut down until the AEC authorizes resumption of operation.

### 1.2 LIMITING SAFETY SYSTEM SETTINGS

Limiting safety system settings are set points for automatic protective devices responsive to the variables on which safety limits have been placed. These set points are so chosen that automatic protective actions will correct the most severe, anticipated abnormal situation so that a safety limit is not exceeded.

### 1.3 LIMITING CONDITIONS FOR OPERATION

Limiting conditions for operation are those restrictions on reactor operation, resulting from equipment performance capability, that must be enforced to ensure safe operation of the facility.

### 1.4 OPERABLE - OPERABILITY

A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

### 3.0 LIMITING CONDITIONS FOR OPERATION

#### Applicability

- 3.0.1 If one of the below listed limiting conditions for operation can not be satisfied because fewer components are operable than are required, the unit shall be placed in hot shutdown within seven hours and cold shutdown within the following 30 hours unless appropriate corrective action is taken before the time expires. This specification applies only to specifications 3.3.1, 3.4.1.b, 3.4.2.b, 3.4.3.b, 3.4.4.b, 3.4.5.b, 3.5, 3.6.d, 3.7.2 and 3.13.3.
- 3.0.2 For purposes of determining if a component is operable for LCO considerations, the component need not be considered inoperable due to inoperability of its normal or emergency power supply if all of its redundant components are operable with their normal or emergency power supplies operable.

### B3.0 BASES FOR LIMITING CONDITIONS FOR OPERATION, APPLICABILITY

3.0.1 This specification delineates the ACTION to be taken for circumstances not directly provided for in the ACTION statements and whose occurrence would violate the intent of the specification. For example, Specification 3.4.1 requires each Reactor Coolant System accumulator to be OPERABLE and provides explicit ACTION requirements if one accumulator is inoperable. Under the terms of Specification 3.0.1, if more than one accumulator is inoperable, the unit is required to be in at least HOT SHUTDOWN within 7 hours. As a further example, Specification 3.4.2.a requires two Containment Spray Systems to be OPERABLE and provides explicit ACTION requirements if one spray system is inoperable: Under the terms of Specification 3.0.1, if both of the required Containment Spray Systems are inoperable, the unit is required to be in at least HOT SHUTDOWN within 7 hours and in at least COLD SHUTDOWN in the next 30 hours. It is assumed that the unit is brought to the required condition within the required times by promptly initiating and carrying out the appropriate ACTION statement.

3.0.2 This specification delineates what additional conditions must be satisfied to permit operation to continue, consistent with the ACTION statements for power sources, when a normal or emergency power source is not OPERABLE. It specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason.

The provisions of this specification permit the ACTION statements associated with individual systems, subsystems, trains, components, or devices to be consistent with the ACTION statements of the associated electrical power source. It allows operation to be governed by the time limits of the ACTION statement associated with the Limiting Condition for Operation for the normal or emergency

power source, not the individual ACTION statements for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

For example, Specification 3.7.1 requires in part that two emergency diesel generators be OPERABLE. The ACTION statement provides for an out-of-service time when one emergency diesel generator is not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.2, all systems, subsystems, trains, components and devices supplied by the inoperable emergency power source would also be inoperable. This would dictate invoking the applicable ACTION statements for each of the applicable Limiting Conditions for Operation. However, the provisions of Specification 3.0.2 permit the time limits for continued operation to be consistent with the ACTION statement for the inoperable emergency diesel generator instead, provided the other specified conditions are satisfied. In this case, this would mean that the corresponding normal power source must be OPERABLE, and all redundant systems, subsystems, trains, components, and devices must be OPERABLE, or otherwise satisfy Specification 3.0.2 (i.e., be capable of performing their design function and have at least one normal or one emergency power source OPERABLE). If they are not satisfied, shutdown is required in accordance with this specification.

In cold shutdown or refueling condition Specification 3.0.2 is not applicable, and thus the individual ACTION statements for each applicable Limiting Condition for Operation in these conditions must be adhered to.

### 3.1 REACTOR COOLANT SYSTEM

Applicability: Applies to the operating status of the Reactor Coolant System.

Objective: To specify those limiting conditions for operation of the Reactor Coolant System which must be met to assure safe reactor operation.

Specification: 1. OPERATIONAL COMPONENTS

a. Reactor Coolant Pumps

1. A minimum of ONE pump shall be in operation when the reactor is in power operation, except during low power physics tests.
2. A minimum of ONE pump, or ONE Residual Heat Removal Pump, shall be in operation during reactor coolant boron concentration reduction.
3. Reactor power shall not exceed 10% of rated power unless at least TWO reactor coolant pumps are in operation.
4. Reactor power shall not exceed 45% of rated power with only two pumps in operation unless the overtemperature  $\Delta T$  trip setpoint,  $K_1$ , for two loop operation, has been set at 0.88.
5. A reactor coolant pump shall not be started when cold leg temperature is  $\leq 275^\circ\text{F}$  unless steam generator secondary water temperature is less than  $50^\circ\text{F}$  above the RCS temperature (including instrument error).

b. Steam Generators

1. A minimum of TWO steam generators shall be operable when the average coolant temperature is above  $350^\circ\text{F}$ .

c. Pressurizer Safety Valves

1. ONE valve shall be operable whenever the head is on the reactor vessel except during hydrostatic test.
2. THREE valves shall be operable when the reactor coolant average temperature is above  $350^\circ\text{F}$  or the reactor is critical.

### 3.3 CONTAINMENT

Applicability: Applies to the integrity of the containment.

Objective: To define the operating status of the containment.

Specification: CONTAINMENT INTEGRITY

1. The containment integrity (as defined in 1.5) shall not be violated unless the reactor is in the cold shutdown condition. Specification 3.0.1 applies to 3.3.1.
2. The containment integrity shall not be violated when the reactor vessel head is removed unless the reactor is in the refueling shutdown condition.

#### INTERNAL PRESSURE

If the internal pressure exceeds 3 psig or the internal vacuum exceeds 2 psig, the condition shall be corrected within 8 hours or the reactor shall be brought to hot shutdown.



5. TWO residual heat removal pumps shall be operable.
  6. TWO residual heat exchangers shall be operable.
  7. All valves, interlocks and piping associated with the above components and required for post accident operation, shall be operable, except valves that are positioned and locked. Valves 864-A, B; 862-A, B; 865-A, B, C; 866-A, B shall have power removed from their motor operators by locking open the circuit breakers at the Motor Control Centers. The air supply to valve 758 shall be shut off to the valve operator.
- b. During power operation, the requirements of 3.4.1a may be modified to allow one of the following components to be inoperable (including associated valves and piping) at any one time except for the cases stated in 3.4.1.b.2. If the system is not restored to meet the requirements of 3.4.1a within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.1a are not satisfied within an additional 48 hours the reactor shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.4.1.b.
1. ONE accumulator may be out of service for a period of up to 4 hours.
  2. ONE of FOUR safety injection pumps may be out of service for 30 days. A second safety injection pump may be out of service, provided the pump is restored to operable status within 24 hours. TWO of the FOUR safety injection pumps shall be tested to demonstrate operability before initiating maintenance of the inoperable pumps.
  3. ONE channel of heat tracing on the flow path may be out of service for 24 hours.

5. ONE residual heat exchanger may be out of service for a period of 24 hours.
6. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.

## 2. EMERGENCY CONTAINMENT COOLING SYSTEMS

- a. The reactor shall not be made critical, except for low power physics tests, unless the following conditions are met:
  1. THREE emergency containment cooling units are operable.
  2. TWO containment spray pumps are operable.
  3. All valves and piping associated with the above components, and required for post accident operation, are operable.
- b. During power operation, the requirements of 3.4.2a may be modified to allow one of the following components to be inoperable (including associated valves and piping) at any one time. If the system is not restored to meet the requirements of 3.4.2a within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.2a are not satisfied within an additional 48 hours the reactor shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.4.2.b.

1. ONE emergency containment cooling unit may be out of service for a period of 24 hours. Prior to initiating maintenance the other TWO units shall be tested to demonstrate operability.
2. ONE containment spray pump may be out of service provided it is restored to operable status within 24 hours. The remaining containment spray pump shall be tested to demonstrate operability before initiating maintenance on the inoperable pump.
3. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves that provide the duplicate function shall be tested to demonstrate operability.

3. EMERGENCY CONTAINMENT FILTERING SYSTEM

- a. The reactor shall not be made critical, except for low power physics tests unless:
  1. THREE emergency containment filtering units are operable.
  2. All valves, interlocks and piping associated with the above components and required for post-accident operation, are operable.
- b. During power operation:
  1. ONE unit may be inoperable for a period of 24 hours if the other TWO are operable.
  2. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
  3. Specification 3.0.1 applies to 3.4.3.b.

4. COMPONENT COOLING SYSTEM

- a. The reactor shall not be made critical, except for low power physics tests, unless the following conditions are met:

1. THREE component cooling pumps are operable.
  2. THREE component cooling heat exchangers are operable.
  3. All valves, interlocks and piping associated with the above components are operable.
- b. During power operation, the requirements of 3.4.4a may be modified as stated below. If the system is not restored to meet the conditions of 3.4.4a within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.4a are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.4.4.b.
1. ONE pump may be out of service for 7 days.
  2. ONE additional pump and ONE heat exchanger may be out of service for a period of 24 hours.

5. INTAKE COOLING WATER SYSTEM

- a. The reactor shall not be made critical unless the following conditions are met:
1. THREE intake cooling water pumps and TWO headers are operable.
  2. All valves, interlocks and piping associated with the operation of these pumps, and required for post accident operation, are operable.

- b. During power operation, the requirements of 3.4.5.a., above, may be modified to allow any one of the following components to be inoperable provided the remaining systems are in continuous operation. If the system is not restored to meet the requirements of 3.4.5.a. within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.5.a. are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.4.5.b. |

1. One of the two headers may be out of service for a period of 24 hours.
2. One intake cooling water pump may be out of service for a period of 24 hours.

### 3.5 INSTRUMENTATION

Applicability: Applies to reactor and safety features instrumentation systems.

Objective: To delineate the conditions of the instrumentation and safety circuits necessary to ensure reactor safety.

Specification: Tables 3.5-1 through 3.5-4 state the minimum instrumentation operating conditions.

Specification 3.0.1 applies to Tables 3.5-1 through 3.5-3.

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1. TWO associated charging pumps shall be operable.
  2. THREE boric acid transfer pumps shall be operable.
  3. The boric acid tanks together shall contain a minimum of 6160 gallons of a 20,000 to 22,500 ppm boron solution at a temperature of at least 145F.
  4. System piping, interlocks and valves shall be operable to the extent of establishing one flow path from the boric acid tanks, and one flow path from the refueling water storage tank, to each Reactor Coolant System.
  5. TWO channels of heat tracing shall be operable for the flow path from the boric acid tanks.
  6. The primary water storage tank contains not less than 30,000 gallons of water.
- d. During power operation, the requirements of 3.6.b and c may be modified to allow one of the following components to be inoperable. If the system is not restored to meet the requirements of 3.6b and c within the time period specified, the reactor(s) shall be placed in the hot shutdown condition. If the requirements of 3.6.b and c are not satisfied within an additional 48 hours, the reactor(s) shall be placed in the cold shutdown condition. Specification 3.0.1 applies to 3.6.d.
1. One of the two operable charging pumps may be removed from service provided that it is restored to operable status within 24 hours.
  2. One boric acid transfer pump may be out of service provided that it is restored to operable status within 24 hours.
  3. One channel of heat tracing may be out of service for 24 hours.

### 3.7 ELECTRICAL SYSTEMS

Applicability: Applies to the availability of electrical power for the operation of auxiliaries.

Objective: To define those conditions of electrical power availability necessary (1) to provide for safe reactor operation, and (2) to provide for the continuing availability of engineered safety features.

Specification:

1. Either reactor shall not be started from a cold shutdown without:
  - a. The associated 239 KV-4160 volt start-up transformer in service.
  - b. 4160-volt busses A and B of the associated unit, and either bus A or B of the second unit, energized.
  - c. THREE out of FOUR 480-volt load centers and 480-volt motor control centers A, B or C, and D of the associated unit energized.
  - d. TWO diesel generators operable with on site supply of 40,000 gallons of fuel available.
  - e. Four batteries and associated DC systems are operable with FOUR out of SIX battery chargers operable.
2. During power operation or restarting from hot shutdown the following components may be inoperable:
  - a. ONE start-up transformer may be out of service provided both diesel generators are operable. The NRC shall be notified within 24 hours and be advised of plans to restore the transformer to service.



- b. Power operation may continue if ONE diesel generator is out of service provided (1) the remaining diesel generator is tested daily and its associated engineered safety features are operable, and (2) either start-up transformer is operable. If the diesel outage is to be seven (7) days or more the NRC shall be notified. |
- c. ONE battery may be out of service for a period of twenty four hours.
- d. Specification 3.0.1 applies to 3.7.2. |

3.13

SHOCK SUPPRESSORS (SNUBBERS)

Applicability: Applies to the operational status of safety-related pipe restraints (snubbers).

Objective: To define the limiting conditions for operation applied to the operability of safety-related snubbers.

- Specification:
1. During all modes of operation except Cold Shutdown and Refueling Shutdown, all (safety-related) snubbers listed in Table 3.13-1 shall be operable except as noted in 3.13.2 through 3.13.4 below.
  2. From the time that a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced with an operable snubber.
  3. If the requirements of 3.13.1 and 3.13.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours. Specification 3.0.1 applies to 3.13.3.
  4. If a hydraulic snubber is determined to be inoperable while the reactor is in the cold shutdown mode or the refueling mode, the snubber shall be made operable or replaced with an operable snubber prior to reactor startup.
  5. Snubbers may be added to Table 3.13-1 without prior license amendment provided that a revision to Table 3.13-1 is included with a license amendment request within 60 days.

Applicability: Establishes operating limitations to assure that the limits of 10 CFR 50, Appendix G, are not exceeded.

Objectives: To minimize the possibility of an overpressure transient which could exceed the limits of 10 CFR 50, Appendix G.

- Specification:
1. At RCS temperature less than or equal to 380°F, valves MOV-\*-843 A, MOV-\*-843 B, MOV-\*-866 A, and MOV-\*-866 B shall be closed.
  2. If any of the valves in 3.15.1 are found to be open while RCS temperature is less than or equal to 380°F, perform at least one of the following within the next 8 hours:
    - a. block the corresponding flow path to the reactor vessel,
    - b. close the valve, or
    - c. depressurize and vent the RCS through an opening with an area of at least 2.20 square inches, or
    - d. verify at least one pressurizer power operated relief valve is maintained open.
  3. At RCS temperature less than or equal to 275°F, two pressurizer power operated relief valves shall be operable at the low setpoint range.
    - a. If one power operated relief valve is inoperable with RCS temperature less than or equal to 275°F, perform at least one of the following within 7 days:
      - (1) restore operability of the power operated relief valve, or
      - (2) depressurize and vent the RCS through an opening with an area of at least 2.20 square inches, or
      - (3) verify at least one pressurizer power operated relief valve is maintained open.
    - b. If both power operated relief valves are inoperable with RCS temperature less than or equal to 275°F, perform at least one of the following within the next 24 hours:
      - (1) restore operability of at least one power operated relief valve, or
      - (2) depressurize and vent the RCS through an opening with an area of at least 2.20 square inches, or
      - (3) verify at least one pressurizer power operated relief valve is maintained open.

## SAFETY EVALUATION

Re: Turkey Point Units 3 & 4  
Docket Nos. 50-250, 50-251  
Proposed Tech Spec Amendment

### I. Introduction

This evaluation supports a proposal to (1) revise specification 1.4 to incorporate an explicit definition of Operable, and (2) add Specifications 3.0.1 and 3.0.2 to ensure that the Limiting Conditions for Operation do address multiple outages of redundant components, and the effects of outages of any support systems.

### II. Discussion

The proposed revision to Technical Specification 1.4 and the addition of Technical Specifications 3.0.1 and 3.0.2 are necessary to comply with USNRC letter dated April 10, 1980. The purposes of these changes are to clarify the meaning of the term Operable and to assure proper action is taken to preserve the single failure criterion for systems that are relied upon in the FSAR. Essentially, the proposed changes do not change the intent of the existing Technical Specification; the proposed changes more precisely define the proper courses of action to ensure safe operation of the units.

### III. Conclusion


We have concluded, based on the considerations discussed above, that: (1) The amendment does not increase the probability or consequences of accidents previously considered and does not reduce the margin of safety, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

STATE OF FLORIDA     )  
                              )  
COUNTY OF DADE     )     SS.

Robert E. Uhrig, being first duly sworn, deposes and says:

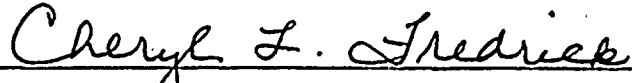
That he is a Vice President of Florida Power & Light Company,  
the Licensee herein;

That he has executed the foregoing document; that the state-  
ments made in this said document are true and correct to the  
best of his knowledge, information, and belief, and that he  
is authorized to execute the document on behalf of said  
Licensee.

  
Robert E. Uhrig

Subscribed and sworn to before me this

12 day of September, 1980

  
NOTARY PUBLIC, in and for the county of Dade,  
State of Florida

My commission expires: Notary Public, State of Florida at Largo  
My Commission Expires October 30, 1983  
Bonded thru Maynard Bonding Agency

