PART 7

Florida Power & Light Company
Turkey Point Plant, Units 6 & 7
COL Application

COLA Table of Contents

Turkey Point Units 6 & 7

COL Application

Part 7

Departures and Exemption Requests

Revision 3

The following departures are described and evaluated in Part A, STD and PTN Departures, of this report.

A.1 Departures That Can Be Implemented Without Prior NRC Approval

Departure Number	Description
STD DEP 1.1-1	Administrative departure for organization and numbering for the FSAR sections and subsections
PTN DEP 2.0-2	Maximum normal wet bulb (noncoincident) air temperature
PTN DEP 2.0-4	Population distribution exclusion area (site)
PTN DEP 2.5-1	DELETED
STD DEP 8.3-1	Class 1E voltage regulating transformer current limiting features
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The following exemptions are being requested in Part B, Turkey Point Units 6 & 7 Exemption Requests, of this report.

B. Turkey Point Units 6 & 7 Exemption Requests

Exemption Number	Description
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A. STD and PTN Departures

This Departure Report includes deviations in the Turkey Point Units 6 & 7 COL Application FSAR from the information in the applicable DCD, pursuant to 10 CFR Part 52, Appendix D, Section VIII and Section X.B.1.

A.1 Departures That Can Be Implemented Without Prior NRC Approval

Departure Number	Description
STD DEP 1.1-1	Administrative departure for organization and numbering for the FSAR sections and subsections
PTN DEP 2.0-2	Maximum normal wet bulb (noncoincident) air temperature
PTN DEP 2.0-4	Population distribution exclusion area (site)
PTN DEP 2.5-1	DELETED
STD DEP 8.3-1	Class 1E voltage regulating transformer current limiting features
PTN DEP 9.3-1	Plant gas system – hydrogen gas portion
PTN DEP 18.8-1	Operations support center location
PTN DEP 18.8-2	Operations support center location
PTN DEP 19.58-1	Severe winds and tornadoes

Departure Number: STD DEP 1.1-1

AFFECTED DCD/FSAR SECTIONS:

2.1.1; 2.1.4; 2.2.1; 2.2.4; 2.4.1; 2.4.15; 2.5; 2.5.6; 9.2.11; 9.2.12; 9.2.13; 9.5.1.8; 9.5.1.9; 13.1; 13.1.4; 13.5; 13.5.3; 13.7; 17.5; 17.6; 17.7; 17.8 (Note the affected sections may vary in subsequent COL Applications, but the departure is standard).

SUMMARY OF DEPARTURE:

This FSAR generally follows the AP1000 DCD organization and numbering. Some organization and numbering differences are adopted where necessary to include additional material, such as additional content identified in Regulatory Guide 1.206.

SCOPE/EXTENT OF DEPARTURE:

The renumbered sections associated with this departure are identified in the FSAR (at the sections identified above).

DEPARTURE JUSTIFICATION:

An administrative departure is established to identify instances where the renumbering of FSAR sections is necessary to effectively include content consistent with Regulatory Guide 1.206, as well as NUREG-0800, Standard Review Plan.

DEPARTURE EVALUATION:

This departure is an administrative change that affects only section numbering of the indicated FSAR sections. Accordingly, it does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.

Departure Number: STD DEP 1.1-1 (continued)

4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

This departure requires an exemption from 10 CFR Part 52, Appendix D, Section IV.A.2.a. Therefore, an exemption is requested in Part B of this COL Application part.

Departure Number: PTN DEP 2.0-2

AFFECTED DCD/FSAR SECTIONS:

2.0; 2.3.1.5; 9.2.1.2; 9.2.7.2

SUMMARY OF DEPARTURE:

The DCD site parameter value for the maximum normal air temperature wet bulb (noncoincident) in DCD Tier 2, Table 2-1 is 80.1°F. The corresponding site characteristic value is 81.5°F as reported in FSAR Subsection 2.3.1.5. This site characteristic exceeds the DCD site parameter by 1.4°F.

SCOPE/EXTENT OF DEPARTURE:

The section and subsection associated with this departure are identified in the FSAR (at the section and subsection identified above).

DEPARTURE JUSTIFICATION:

The maximum normal wet bulb (noncoincident) air temperature for Units 6 & 7 is 81.5°F. This is the 0.4 percent annual exceedance value as reported in FSAR Subsection 2.3.1.5. This value is approximately equivalent to the 1 percent seasonal exceedance value, as stated in note (b) of DCD Table 2-1. This temperature exceeds the DCD site parameter of 80.1°F by 1.4°F. Analysis of the maximum normal wet bulb (noncoincident) air temperature for Units 6 & 7 has been performed. The results of this analysis show that the higher site characteristic temperature will not adversely affect any SSCs, their functional capability, or analysis methods as presented in the DCD.

Specifically, the following evaluations were performed with the following results:

- Design Basis Heating Ventilation Air Conditioning Systems Operation

  The increase in wet bulb temperature will impact the standard plant design of the High Capacity Chilled Water System (HCVWS). To accommodate the impact of the higher wet bulb temperature on HVAC margins, the size of the air-cooled chillers in the HCVWS will be increased. The current HCVWS has two 1700-ton water cooled chillers coupled with two 300-ton air-cooled chillers. Replacing the two 300-ton air-cooled chillers with 400-ton air-cooled chillers will maintain adequate HVAC design margins and allow the HCVWS to meet the increased load due to higher wet bulb design basis. There is no impact on the performance of SSCs important to safety or to analysis methods as a result of the increase in maximum normal wet bulb temperature.

Departure Number: PTN DEP 2.0-2 (continued)

- Maximum Spent Fuel Pool Temperatures

  A SFS heat exchanger design will satisfy DCD Spent Fuel Pool temperature requirements taking into account elevated site wet bulb ambient temperatures and elevated CCS temperatures. All spent fuel pool temperature limit criteria are met with ambient wet bulb temperatures as specified for each case identified in the DCD.

- Service Water System (SWS) Maximum Cooling Water Temperature of 88.5°F at Design Peak SWS Heat Duty

  At conservative, yet more realistic best estimate conditions, the SWS demonstrates a capability to deliver water to the CCS heat exchanger at less than 88.5°F and meets the plant cooldown commitments with a maximum normal wet bulb temperature. This meets the acceptance criteria established for this analysis. SWS cold water temperature rises to 89.8°F with peak CCS/SWS heat duty four hours after reactor shutdown (beginning of cooldown), with an ambient wet bulb temperature of 81.5°F.

- Maximum Reactor Coolant System Cooldown Times

  Two cooldown cases have been analyzed:

  Case 1: 1 percent exceedance wet bulb temperature and operation of the blowdown HX.

  Case 2: 1 percent exceedance wet bulb temperature and no credit taken for the operation of the blowdown HX.

  The cooldown capability to 125°F within 96 hours can be met at ambient wet bulb temperature of 81.5°F.

- Turbine Building Closed Cooling Water (TCS) Maximum Temperature Limit of 105°

  The temperature of the TCS cooling water supplied to turbine and generator auxiliaries is lower than 105°F for the maximum ambient wet bulb temperature of 81.5°F. The plant can operate at full output at the maximum normal wet bulb condition without any restriction imposed by turbine or generator auxiliary cooling requirements.

Departure Number: PTN DEP 2.0-2 (continued)

DEPARTURE EVALUATION:

The effect of the site-specific maximum normal wet bulb temperature of 81.5°F (noncoincident) versus the DCD value of 80.1°F on SSCs important to safety or analyses described in the DCD was evaluated. The change to maximum normal wet bulb temperature does not affect the function of any SSCs important to safety or analysis methods as presented in the DCD. The following summarizes the evaluation:

1. Increase HCVWS chiller refrigeration tonnage by 100 tons (total 2100 tons per train) by increasing the capacity of the air-cooled HCVWS chillers to 400 tons. No change to Low Capacity Chilled Water chiller tonnage is required.
2. All spent fuel pool temperature limit criteria are met with ambient wet bulb temperatures as specified for each case identified in the DCD.
3. SWS cold water temperature increases to 89.8°F with peak CCS/SWS heat duty four hours after reactor shutdown (beginning of cooldown) with ambient wet bulb temperature of 81.5°F. With a conservative realistic design basis the SWS cold water temperature remains at or below 88.5°F with CCS/SWS heat duty at four hours after reactor shutdown (beginning of cooldown) and an ambient wet bulb temperature of 81.5°F.
4. The cooldown capability to 125°F within 96 hours can be met at ambient wet bulb temperature of 81.5°F.
5. TCS supply temperature remains below 105°F for all ambient wet bulb conditions, including the maximum normal value of 81.5°F.

Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.

Departure Number: PTN DEP 2.0-2 (continued)

5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 2.0-4

AFFECTED DCD/FSAR SECTIONS:

2.0; 2.1.2; 2.3.4.2

SUMMARY OF DEPARTURE:

DCD Table 2-1 lists a site parameter for the population distribution exclusion area (site) of 0.5 miles. The distance from the Units 6 & 7 source boundary to the exclusion area boundary (EAB) and the atmospheric dispersion value (X/Q) at the EAB are listed in the following table:

Sector	Distance to EAB (feet)	Distance to EAB (miles)	X/Q (sec/m^3) 0-2 Hours
S	2756	0.52	2.51E-04
SSW	2687	0.51	1.03E-04
SW	2375	0.45	1.25E-04
WSW	2559	0.49	1.17E-04
W	2566	0.49	1.38E-04
WNW	2589	0.49	1.33E-04
NW	2513	0.48	1.39E-04
NNW	2516	0.48	1.18E-04
N	2516	0.48	1.10E-04
NNE	2516	0.48	1.23E-04
NE	1427	0.27	3.54E-04
ENE	1503	0.29	3.26E-04
E	1572	0.30	3.92E-04
ESE	1932	0.37	3.51E-04
SE	1923	0.37	4.19E-04
SSE	2782	0.53	3.04E-04

All sector distances, except for S, SSW, and SSE sectors, are less than the 0.5 mile site parameter, with the minimum being 0.27 miles in the northeast sector.

Departure Number: PTN DEP 2.0-4 (continued)

SCOPE/EXTENT OF DEPARTURE:

The section and subsection associated with this departure is identified in the FSAR (at the section and subsection identified above).

DEPARTURE JUSTIFICATION:

DCD Table 2-1 lists the site parameter for the X/Q at the site boundary (0 – 2 hr) to be ≤ 5.1E-04 sec/m^3. Note (e) to this table states that the terms "site boundary" and "exclusion area boundary" are used interchangeably in the DCD. Therefore, this X/Q site parameter applies to the exclusion area boundary and is the limiting parameter, not distance. As listed in the above table, all the X/Q values in all the sectors are below the 5.1E-04 sec/m^3 DCD site parameter limit for X/Q.

DEPARTURE EVALUATION:

This departure does not affect the design or function of any SSCs. Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.

Departure Number: PTN DEP 2.0-4 (continued)

8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 2.5-1

DELETED

Departure Number: STD DEP 8.3-1

AFFECTED DCD/FSAR SECTIONS:

8.3.2.2

SUMMARY OF DEPARTURE:

The DCD states that the Class 1E battery chargers and Class 1E voltage regulating transformers are designed to limit the input (ac) current to an acceptable value under faulted conditions on the output side. However, the AP1000 voltage regulating transformers do not have active components to limit current.

SCOPE/EXTENT OF DEPARTURE:

This departure is identified in FSAR Subsection 8.3.2.2.

DEPARTURE JUSTIFICATION:

DCD Subsection 8.3.2.2 states that the Class 1E voltage regulating transformers have built-in circuit breakers at the input and output sides for protection and isolation. The circuit breakers are coordinated and periodically tested to verify their designed coordination and isolation function. They are qualified as isolation devices between Class 1E and non-Class 1E circuits in accordance with IEEE 384 and Regulatory Guide 1.75. Since the isolation and protection function is provided by the breakers, there is no need for the voltage regulating transformers to have current limiting capability. This departure does not adversely affect any safety-related system, nor does it conflict with applicable regulatory guidance.

DEPARTURE EVALUATION:

This Tier 2 departure is associated with isolation between Class 1E loads and the non-Class 1E ac power source. The departure results in a change to the DCD that does not impact the required design function (i.e., isolation). Accordingly, it does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.

Departure Number: STD DEP 8.3-1 (continued)

4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 9.3-1

AFFECTED DCD/FSAR SECTIONS:

9.3.2.2, 9.3.2.5

SUMMARY OF DEPARTURE:

DCD Subsection 9.3.2.2.1 describes the low-pressure hydrogen gas portion of the plant gas system as a packaged system consisting of a liquid hydrogen storage tank and vaporizers. Units 6 & 7 will use a series of hydrogen storage banks that store hydrogen gas in banks of storage tubes instead of the liquid hydrogen storage tank and vaporizers. The hydrogen gas storage banks will be located at the hydrogen storage tank area.

SCOPE/EXTENT OF DEPARTURE:

The subsections associated with this departure are identified in the FSAR (at the subsections identified above).

DEPARTURE JUSTIFICATION:

To be consistent with the operating practice at Turkey Point Units 3 & 4, the low-pressure hydrogen gas portion of the plant gas system at Units 6 & 7 will be supplied from a series of hydrogen gas storage banks. The change from a liquid hydrogen storage tank and vaporizers to hydrogen gas storage banks affects only the source of hydrogen for the plant gas system. The plant gas system serves no safety-related function and has no nuclear safety design basis.

Toxicity, flammability, and explosion analyses have been performed. These analyses use a series of up to 40,000 standard cubic foot hydrogen banks of gaseous hydrogen placed 560 feet east of the Unit 6 control room. The cumulative volume of hydrogen gas contained in the banks would be equivalent to 1500 gallons of liquid hydrogen. The results of these analyses show no adverse effects on the safe operation or shutdown of Units 6 & 7, as described in FSAR Section 2.2.

DEPARTURE EVALUATION:

The supply of gaseous hydrogen directly from banks of storage tubes is functionally equivalent to the supply of gaseous hydrogen via the process of vaporizing liquid hydrogen into a gas to then be distributed to the plant. The gas hydrogen banks will be located on a gas pad far enough from the nuclear island so as not to require a change in a SSC. Storing hydrogen in compressed gas cylinders is a proven technology and is used at most operating nuclear plants.

Departure Number: PTN DEP 9.3-1 (continued)

Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 18.8-1

AFFECTED DCD/FSAR SECTIONS:

1.2.3; 9.4.2.2; 9A; 12.3.1.2; 12.5.2.2; 12.5.3.2; 18.8.3.6

SUMMARY OF DEPARTURE:

The Operations Support Center (OSC) is being moved from the location identified in DCD Subsections 18.8.3.6, 12.5.2.2, and 12.5.3.2 and as identified on DCD figures in Subsections 1.2, 12.3, and Appendix 9A. There will be a single OSC for Units 6 & 7 located as described in the Emergency Plan.

SCOPE/EXTENT OF DEPARTURE:

The sections and subsections associated with this departure are identified in the FSAR (at the sections and subsections identified above).

DEPARTURE JUSTIFICATION:

The referenced DCD states, "The ALARA briefing and operations support center is located off the main corridor immediately beyond the main entry to the annex building," and indicates that the OSC location is identified on Figure 1.2-18. For Units 6 & 7, the OSC is being moved, as described in the Emergency Plan, and one OSC will serve both Units 6 & 7 to optimize use of space and operational resources.

DEPARTURE EVALUATION:

This departure is for a non-safety-related system, and the alternate location of the OSC meets applicable requirements. Relocating the OSC does not adversely affect its function and therefore this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.

Departure Number: PTN DEP 18.8-1 (continued)

5. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
6. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
7. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
8. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
9. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 18.8-2

AFFECTED DCD/FSAR SECTIONS:

18.8.3.5

SUMMARY OF DEPARTURE:

The Technical Support Center (TSC) is not located in the control support area as identified in DCD Subsection 18.8.3.5. The TSC is common for Turkey Point Units 3, 4, 6, and 7 and is located as described in the Emergency Plan.

SCOPE/EXTENT OF DEPARTURE:

The subsection associated with this departure is identified in the FSAR (at the subsection identified above).

DEPARTURE JUSTIFICATION:

The referenced DCD states, "The TSC is located in the control support area (CSA)." This is not the case for Units 6 & 7. The TSC location is moved to a central location as identified in the Emergency Plan, such that a single TSC can serve Units 3, 4, 6, and 7 to optimize use of space and operational resources.

DEPARTURE EVALUATION:

This departure is for a non-safety-related system, and the alternate location of the TSC meets applicable requirements. Relocating the TSC does not adversely affect its function and therefore this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.

Departure Number: PTN DEP 18.8-2 (continued)

5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require prior NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

Departure Number: PTN DEP 19.58-1

AFFECTED DCD/FSAR SECTIONS:

19.58

SUMMARY OF DEPARTURE:

As shown in Table 19.58-201, the initiating event frequency for high winds at Units 6 & 7 are higher than those in the DCD. Therefore, a site-specific analysis of high winds and tornadoes was conducted to determine core damage frequency (CDF). The analysis determined the total CDF for Case 1 (loss of offsite power) is 3.3E-09, the CDF for Case 2 (loss of offsite power with non-safety systems unavailable for select events) is 1.0E-08, and for Case 3 (loss of offsite power with non-safety systems unavailable for all events) the CDF is 2.0E-08 per year. These values are higher than the DCD CDF values listed in DCD Table 19.58-3.

SCOPE/EXTENT OF DEPARTURE:

The section associated with this departure is identified in the FSAR (at the section identified above).

DEPARTURE JUSTIFICATION:

The site-specific high winds and tornadoes analysis consists of three case studies, with Case 2 (loss of offsite power with non-safety systems unavailable for select events) considered to be the representative conservative model. Case 1 (loss of offsite power) and Case 3 (loss of offsite power with non-safety systems unavailable for all events) of the analysis are treated as sensitivity studies, with Case 3 being a very conservative scenario. The actual non-safety structures are designed to the Uniform Building Code and offer a degree of robustness such that the failure of all such systems in all events is considered extreme and conservative.

The site-specific CDF for Case 1 is 3.3E-09 per year and Case 2 is 1.0E-08 per year. These both meet the CDF screening criteria of 1.0E-08 per year as described in Westinghouse Technical Report APP-GW-GLR-101, “AP1000 Probabilistic Risk Assessment Site-Specific Considerations,” Revision 1, Section 3.0, High Winds Evaluation. Case 3 is slightly above the DCD value of 1.38E-08, the result is considered very conservative for the reasons stated above. Therefore, a further detailed PRA for Units 6 & 7 high winds and tornadoes is not necessary. The complete discussion of the site-specific high winds and tornadoes analysis is provided in FSAR Section 19.58.

Departure Number: PTN DEP 19.58-1 (continued)

DEPARTURE EVALUATION:

As reported in FSAR Section 19.58, the CDF for Case 2 of the high winds hazard evaluation is not greater than the 1.0E-08 per year screening criteria. Consequently, further detailed PRA is not necessary for the Units 6 & 7 High Winds and Tornado analysis.

Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

A.2 Departures That Require NRC Approval Prior to Implementation

Departure Number	Description
PTN DEP 2.0-1	Operating basis wind speed
PTN DEP 2.0-3	Maximum safety wet bulb (noncoincident) air temperature

Departure Number: PTN DEP 2.0-1

AFFECTED DCD/FSAR SECTIONS:

2.0; 2.3.1.3.1; 3.3.1.1; 3.3.3; 3H3.3

SUMMARY OF DEPARTURE:

The DCD site parameter value for operating basis wind speed in DCD Tier 2, Table 2-1 is 145 miles per hour. In DCD Appendix 3H, the operating basis wind speed is a Tier 2* value. The corresponding site characteristic is the 50-year return period, 3-second gust wind speed of 150 miles per hour as reported in FSAR Subsection 2.3.1.3.1. This site characteristic exceeds the DCD site parameter by 5 miles per hour.

SCOPE/EXTENT OF DEPARTURE:

The sections and subsections associated with this departure are identified in the FSAR (at the sections and subsections identified above).

DEPARTURE JUSTIFICATION:

The 50-year return, 3-second gust wind speed for Units 6 & 7 is 150 miles per hour. This wind speed exceeds the DCD site parameter of 145 miles per hour by 5 miles per hour. Analysis of the site characteristic wind speed has been performed and it has been concluded that the increase in wind design speed will not impact the AP1000 design. The safety related structures that are affected by the increase in wind speed are the Auxiliary Building and Shield Building of the Nuclear Island. There are no other safety related SSCs exposed to the wind speeds evaluated. The results of this analysis show that the higher wind speed will not adversely affect any safety-related SSCs.

DEPARTURE EVALUATION:

The wind load does not control the design for the Nuclear Island structures. The Auxiliary Building wall and roof structure design is controlled by tornado, seismic, and accident pressure/ temperature. The Shield Building design is controlled by the seismic loads.

From this evaluation, it has been concluded:

1. The Auxiliary Building external walls and roof design is not controlled by the wind load, and an increase of wind speed from 145 mph to 150 mph will not require a redesign of the building.

Departure Number: PTN DEP 2.0-1 (continued)

2. The Shield Building design is not controlled by the wind load, and an increase of wind speed from 145 mph to 150 mph will not require a redesign of the building.

Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure requires NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.6.

Departure Number: PTN DEP 2.0-3

AFFECTED DCD/FSAR SECTIONS:

2.0; 2.3.1.5; 5.4.7.1; 9.2.2.1

SUMMARY OF DEPARTURE:

The site parameter value provided in DCD Tier 1, Table 5.0-1 for the air temperature maximum wet bulb (noncoincident) is 86.1°F. This site parameter value is listed as the maximum safety wet bulb (noncoincident) air temperature in DCD Tier 2, Table 2-1. The corresponding site characteristic value is 87.4°F as reported in FSAR Subsection 2.3.1.5. This site characteristic exceeds the DCD site parameter by 1.3°F.

SCOPE/EXTENT OF DEPARTURE:

The sections and subsections associated with this departure are identified in the FSAR (at the sections and subsections identified above).

DEPARTURE JUSTIFICATION:

The maximum safety wet bulb (noncoincident) air temperature is 87.4°F. This is the 100-year return estimate of 2-hour duration as reported in FSAR Subsection 2.3.1.5. This temperature exceeds the DCD site parameter of 86.1°F by 1.3°F. Analysis of the maximum safety wet bulb (noncoincident) air temperature has been performed. The results of this analysis show that the higher maximum safety wet bulb (noncoincident) air temperature will not adversely affect any safety-related SSCs, their functional capabilities or analysis methods as presented in the DCD.

Specifically, the following evaluations were performed with the following results:

- Containment Pressure Design Limit Evaluation

  There is no change in maximum containment pressure value reported in the DCD as a result of increasing the maximum safety noncoincident wet bulb temperature to 87.4°F.

- IRWST Temperature Control with Normal Residual Heat Removal System (RNS)

  The IRWST does not steam with RNS cooling initiated two hours after loss of high pressure heat removal and PRHR actuation, with the safety noncoincident wet bulb at or below 87.4°F.

Departure Number: PTN DEP 2.0-3 (continued)

- Component Cooling Water System (CCS) Maximum Temperature <100°F During Power Operation

  At the maximum safety noncoincident wet-bulb temperature, the Service Water System and CCS must maintain a CCS supply temperature of less than 100°F for all cooled loads at full power operating conditions. The CCS temperature remains below 100°F with the safety noncoincident wet bulb temperature at or below 87.4°F.

- Nuclear Island Nonradioactive Ventilation System (VBS) Capability

  The evaluation shows that the increase in the safety noncoincident wet bulb temperature will not impact the standard plant design of the Low Capacity Chilled Water System (LCVWS). With the increased heat loads resulting from the higher maximum safety wet bulb temperature, the LCVWS maintains the VBS's capability to maintain the main control room, and 1E electrical rooms below 75°F with a single train of VBS and the Chilled Water System in service. No change to LCVWS chiller capacity or the VBS capacity is required with the safety noncoincident wet bulb at or below 87.4°F.

DEPARTURE EVALUATION:

The effect of the site-specific maximum safety wet bulb (noncoincident) air temperature of 87.4°F was evaluated. The results of this evaluation determined that the Unit 6 & 7 site-specific value does not affect any SSC design function or analysis methods as presented in the DCD. The following summarizes the evaluation:

- There is no change in maximum containment pressure value reported in the DCD as a result of increasing the maximum safety noncoincident wet bulb temperature to 87.4°F.

- IRWST does not steam with RNS cooling initiated two hours after loss of high pressure heat removal and Passive Residual Heat Removal (PRHR) actuation, with maximum safety noncoincident wet bulb of 87.4°F.

- The CCS temperature remains below 100°F with a maximum safety noncoincident wet bulb temperature of 87.4°F.

- No change to LCVWS chiller capacity required due to the increase in the maximum safety wet bulb temperature.

Departure Number: PTN DEP 2.0-3 (continued)

Therefore, this departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD.
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD.
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD.
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD.
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD.
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD.
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered.
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of a severe accident issue identified in the plant-specific DCD. Therefore, this departure has no safety significance.

NRC APPROVAL REQUIREMENT:

This departure requires an exemption from the requirements of 10 CFR Part 52, Appendix D, Section IV.A.2.d, which requires information demonstrating compliance with the site parameters and interface requirements. Therefore, an exemption is requested in Part B of this COL Application part.

B. Turkey Point Units 6 & 7 Exemption Requests

FPL requests the following exemptions:

Exemption Number	Description
B.1	Combined License (COL) Application organization and numbering
B.2	Maximum safety wet bulb (noncoincident) air temperature
B.3	DELETED
B.4	Special Nuclear Material (SNM) Material Control and Accounting Program Description

Discussion and justification for each of these requests is provided in the following pages.

B.1) COMBINED LICENSE (COL) APPLICATION ORGANIZATION AND NUMBERING (PART 52, APPENDIX D)

Applicable Regulation(s): 10 CFR Part 52, Appendix D, Section IV.A.2.a

Specific wording from which exemption is requested:

> "IV. Additional Requirements and Restrictions
>
> A. An applicant for a combined license that wishes to reference this appendix shall, in addition to complying with the requirements of 10 CFR 52.77, 52.79, and 52.80, comply with the following requirements:
>
> 1. Incorporate by reference, as part of its application, this appendix.
> 2. Include, as part of its application:
>
> a. A plant-specific DCD containing the same type of information and using the same organization and numbering as the generic DCD for the AP1000 design, as modified and supplemented by the applicant's exemptions and departures;"

Pursuant to 10 CFR 52.7 and 52.93, FPL requests an exemption from the requirement of 10 CFR 52, Appendix D, Section IV.A.2.a, to include a plant-specific DCD "containing the same type of information and using the same organization and numbering as the generic DCD for the AP1000 design…" While the Turkey Point Units 6 & 7 plant specific DCD does contain the same type of information and generally follows the same organization and numbering as the generic DCD for the AP1000 design, some limited sections and subsections of the FSAR (as identified in the departures report as item STD DEP 1.1-1) do not follow the "same organization and numbering as the generic DCD for the AP1000 design." FPL proposes to provide the plant-specific DCD (i.e., FSAR) with some administrative revisions to the organization and numbering of the AP1000 DCD.

Discussion:

The AP1000 DCD generally has an organization and numbering format that provides text by subject in general conformance with the Standard Review Plans (SRPs) in effect at the time the DCD was written. Generally, COL information items are included at the end of a chapter, section, or subsection. In some cases, such as DCD Sections 2.1 and 2.2, the section may consist solely of a short description of topic and the COL information item subsection. This organization and numbering does not allow for the detailed discussion of these topics that is to be included in a complete FSAR section. As such, it is necessary to include numerous additional sections and subsections to fully address the topic as identified in the guidance of RG 1.206 and the applicable SRP. In other cases, the organization and numbering must be modified slightly to allow for

inclusion of plant-specific discussions within the appropriate section of the FSAR, such as including an additional water system description in Section 9.2. In these cases, the COL information item discussions are retained at the end of the DCD corresponding chapter, section, or subsection (to maintain the organization), but the numbering may be different.

These differences are well identified in the FSAR as STD DEP 1.1-1 at each location where the departure is taken and are considered to be purely administrative to support a logical construction of the document. Where the departure from the DCD organization and numbering is taken, the revised organization and numbering generally follows the guidance provided in RG 1.206 and the applicable SRP. As such, there are no significant departures from the expected organization and numbering of a typical FSAR, and the information is readily identifiable to facilitate NRC review.

In view of the above, we believe that it would be inconsistent with the purpose of the rule for both FPL and the NRC to fully comply with the regulation of 10 CFR Part 52, Appendix D, Section IV.A.2.a, which requires strict adherence to the "same organization and numbering as the generic DCD for the AP1000 design." Accordingly, FPL hereby submits a request for an exemption from the regulations of 10 CFR 52, Appendix D, Section IV.A.2.a, pursuant to 10 CFR 52.7, "Specific Exemptions," and 10 CFR 52.93, "Exemptions and Variances."

Granting this request, which is authorized by law, would facilitate the NRC review of the Units 6 & 7 COL Application. For this and other reasons, granting this exemption request will not present an undue risk to the public health and safety, and is consistent with the common defense and security.

Moreover, compliance with the current rule would cause undue hardship for FPL and would also be inefficient and burdensome for the NRC staff. That approach would require FPL to prepare, and NRC to review, information with an organization and numbering that is unfamiliar and inconsistent with the current guidance for format and content of a COL Application.

Additionally, compliance with Appendix D, Section IV.A.2.a, is not necessary to achieve its underlying purpose. Most of the FSAR conforms to the organization and numbering of the referenced DCD. The exceptions are limited and do not lead to confusion regarding the incorporation of the DCD into the FSAR.

For these reasons, FPL requests approval of the requested exemption from current regulations of 10 CFR 52, Appendix D, Section IV.A.2.a, as identified herein and in the application departures report.

B.2) MAXIMUM SAFETY WET BULB (NONCOINCIDENT) AIR TEMPERATURE (PART 52, APPENDIX D)

Applicable Regulation(s): 10 CFR Part 52, Appendix D, Section IV.A.2.d

Specific wording from which exemption is requested:

"IV. Additional Requirements and Restrictions

A. An applicant for a combined license that wishes to reference this appendix shall, in addition to complying with the requirements of 10 CFR 52.77, 52.79, and 52.80, comply with the following requirements:

1. Incorporate by reference, as part of its application, this appendix.

2. Include, as part of its application:

a. A plant-specific DCD containing the same type of information and using the same organization and numbering as the generic DCD for the AP1000 design, as modified and supplemented by the applicant's exemptions and departures;

b. The reports on departures from and updates to the plant-specific DCD required by paragraph X.B of this appendix;

c. Plant-specific TS, consisting of the generic and site-specific TS that are required by 10 CFR 50.36 and 50.36a;

d. Information demonstrating compliance with the site parameters and interface requirements;"

Pursuant to 10 CFR 52.7 and 52.93, FPL requests an exemption from the requirement of 10 CFR 52, Appendix D, Section IV.A.2.d, to include "information demonstrating compliance with the site parameters and interface requirements."

Discussion:

The site parameter value provided in DCD Tier 1, Table 5.0-1 for the air temperature maximum wet bulb (noncoincident) is 86.1°F. This site parameter value is listed as the maximum safety wet bulb (noncoincident) air temperature in DCD Tier 2, Table 2-1. The site characteristic for the maximum safety wet bulb (noncoincident) air temperature for Units 6 & 7 is 87.4°F. This is the 100-year return estimate of 2-hour duration as reported in FSAR Subsection 2.3.1.5. This temperature exceeds the DCD site parameter of 86.1°F by 1.3°F.

Analysis of the maximum safety wet bulb (noncoincident) air temperature of 87.4°F for Units 6 & 7 has been performed. The results of this analysis show that the higher maximum safety wet bulb (noncoincident) air temperature will not adversely affect any safety-related structures, systems or components.

Conclusion:

This exemption request was evaluated in accordance with Section VIII.A.4 of the design certification rule which requires that 1) the change will not result in a significant decrease in the level of safety otherwise provided by the design; 2) the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security; 3) special circumstances are present as specified in 10 CFR 50.12(a)(2); and 4) the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. As shown below, each of these four criteria are satisfied.

(1) As described above, the exemption does not have an adverse impact on the AP1000 Standard Plant design and therefore will not result in a significant decrease in the level of safety otherwise provided by the design.

(2) The exemption is not inconsistent with the Atomic Energy Act or any other statute and therefore is authorized by law. As discussed above, the exemption does not have an adverse impact on the AP1000 Standard Plant design and therefore will not present an undue risk to the public health and safety. The exemption does not relate to security and does not otherwise pertain to the common defense and security.

(3) Special circumstances are present as specified in 10 CFR 50.12(a)(2). Specifically, application of 10 CFR 52, Appendix D, Section IV.A.2.d and the site parameters in Tier 1 of the DCD are not necessary to achieve the underlying purpose of the rules. The analysis described above shows that the increase in the maximum safety temperature does not affect the AP1000 Standard Plant design. Consequently, granting relief from the maximum safety air temperature in the DCD would maintain the level of safety in the design, which is the underlying purpose of the rule.

(4) The special circumstances outweigh any decrease in safety that may result from the reduction in standardization (due to the increase in the maximum safety temperature) caused by the exemption. Specifically, the exemption does not change the AP1000 Standard Plant design and does not affect the configuration of the plant or the manner in which the plant is operated.

As demonstrated above, this exemption request complies with the requirements in Section VIII.A.4 of the design certification rule for the AP1000. Therefore, the exemption also satisfies the requirements in 10 CFR 52.7 for an exemption from 10 CFR 52, Appendix D, Section IV.A.2.d,

since the criteria in 10 CFR 52.7 are a subset of the criteria in Section VIII.A.4 of the design certification rule for the AP1000.

B.3) DELETED

B.4) SPECIAL NUCLEAR MATERIAL (SNM) MATERIAL CONTROL AND ACCOUNTING (MC&A) PROGRAM DESCRIPTION [PART 70, SUBPART D AND PART 74, SUBPARTS C, D, AND E]

Applicable Regulation(s): 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51

Specific wording from which exemption is requested:

10 CFR 70.22(b), Contents of applications:

(b) Each application for a license to possess special nuclear material, to possess equipment capable of enriching uranium, to operate an uranium enrichment facility, to possess and use at any one time and location special nuclear material in a quantity exceeding one effective kilogram, except for applications for use as sealed sources and for those uses involved in the operation of a nuclear reactor licensed pursuant to Part 50 of this chapter and those involved in a waste disposal operation, must contain a full description of the applicant's program for control and accounting of such special nuclear material or enrichment equipment that will be in the applicant's possession under license to show how compliance with the requirements of §§ 74.31, 74.33, 74.41, or 74.51 of this chapter, as applicable, will be accomplished.

10 CFR 70.32, Conditions of licenses:

(c) (1) Each license authorizing the possession and use at any one time and location of uranium source material at an uranium enrichment facility or special nuclear material in a quantity exceeding one effective kilogram, except for use as sealed sources and those uses involved in the operation of a nuclear reactor licensed pursuant to Part 50 of this chapter and those involved in a waste disposal operation, shall contain and be subject to a condition requiring the licensee to maintain and follow:

(i) The program for control and accounting of uranium source material at an uranium enrichment facility and special nuclear material at all applicable facilities as implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(c) of this chapter, as appropriate;

(ii) The measurement control program for uranium source material at an uranium enrichment facility and for special nuclear material at all applicable facilities as implemented pursuant to §§ 74.31(b), 74.33(b), 74.45(c), or 74.59(e) of this chapter, as appropriate; and

(iii) Other material control procedures as the Commission determines to be essential for the safeguarding of uranium source material at an uranium enrichment facility

or of special nuclear material and providing that the licensee shall make no change that would decrease the effectiveness of the material control and accounting program implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(c) of this chapter, and the measurement control program implemented pursuant to §§ 74.31(b), 74.33(b), 74.41(b), or 74.59(e) of this chapter without the prior approval of the Commission. A licensee desiring to make changes that would decrease the effectiveness of its material control and accounting program or its measurement control program shall submit an application for amendment to its license pursuant to § 70.34.

10 CFR 74.31, Nuclear material control and accounting for special nuclear material of low strategic significance:

(a) General performance objectives. Each licensee who is authorized to possess and use more than one effective kilogram of special nuclear material of low strategic significance, excluding sealed sources, at any site or contiguous sites subject to control by the licensee, other than a production or utilization facility licensed pursuant to Part 50 or 70 of this chapter, or operations involved in waste disposal, shall implement and maintain a Commission approved material control and accounting system that will achieve the following objectives:

10 CFR 74.41, Nuclear material control and accounting for special nuclear material of moderate strategic significance:

(a) General performance objectives. Each licensee who is authorized to possess special nuclear material (SNM) of moderate strategic significance or SNM in a quantity exceeding one effective kilogram of strategic special nuclear material in irradiated fuel reprocessing operations other than as sealed sources and to use this material at any site other than a nuclear reactor licensed pursuant to Part 50 of this chapter; or as reactor irradiated fuels involved in research, development, and evaluation programs in facilities other than irradiated fuel reprocessing plants; or an operation involved with waste disposal, shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following performance objectives:

10 CFR 74.51, Nuclear material control and accounting for strategic special nuclear material:

(a) General performance objectives. Each licensee who is authorized to possess five or more formula kilograms of strategic special nuclear material (SSNM) and to use such material at any site, other than a nuclear reactor licensed pursuant to Part 50 of this chapter, an irradiated fuel reprocessing plant, an operation involved with waste

disposal, or an independent spent fuel storage facility licensed pursuant to Part 72 of this chapter shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following objectives:

Discussion:

Florida Power & Light Company (FPL) requests an exemption from the requirements of 10 CFR § 70.22(b) and, in turn, §§ 70.32(c), 74.31, 74.41, and 74.51. Section 70.22(b) requires an application for a license for special nuclear material to contain a full description of the applicant's program for material control and accounting (MC&A) of special nuclear material under §§ 74.31, 74.33, 74.41, and 74.51[1]. Section 70.32(c) requires a license authorizing the use of special nuclear material to contain and be subject to a condition requiring the licensee to maintain and follow a special nuclear material control and accounting program, measurement control program, and other material control procedures, including the corresponding records management requirements. However, §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 contain exceptions for nuclear reactors licensed under 10 CFR Part 50. The regulations applicable to the MC&A of special nuclear material for nuclear reactors licensed under 10 CFR Part 50 are provided in 10 CFR Part 74, Subpart B, §§ 74.11 through 74.19, excluding § 74.17. The purpose of this exemption request is to seek a similar exception for this combined license (COL) under 10 CFR Part 52, such that the same regulations will be applied to the special nuclear material MC&A program as nuclear reactors licensed under 10 CFR Part 50.

Nuclear reactors licensed under Part 50 are explicitly excepted from the requirements of §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51. There is no technical or regulatory reason to treat nuclear reactors licensed under Part 52 differently than reactors licensed under Part 50 with respect to the MC&A provisions in 10 CFR Part 74. As indicated in the Statement of Considerations for 10 CFR § 52.0(b) (72 Fed. Reg. 49352, 49372, 49436 (Aug. 28, 2007)), applicants and licensees under Part 52 are subject to all of the applicable requirements in 10 CFR Chapter I, whether or not those provisions explicitly mention a COL under Part 52. This regulation clearly indicates that plants licensed under Part 52 are to be treated no differently than plants licensed under Part 50 with respect to the substantive provisions in 10 CFR Chapter I (which includes Parts 70 and 74). In particular, the exception for nuclear reactors licensed under Part 50, as contained in §§ 70.22(b), 70.32(c), 74.31, 74.41, or 74.51, should also be applied to reactors licensed under Part 52.

[1] While not containing an explicit exception for Part 50 reactors, § 74.33 applies only to uranium enrichment facilities and thus is not directly implicated in this exemption request.

An exemption from the requirements of §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not mean that a MC&A program would be unnecessary or that the COL application would be silent regarding MC&A. To the contrary, the MC&A requirements in Subpart B to Part 74 would still be applicable to the COL just as they are to licenses issued under Part 50. Additionally, the COL application will describe the MC&A program for satisfying Subpart B to Part 74.

This exemption request is evaluated under 10 CFR § 52.7, which incorporates the requirements of § 50.12. That section allows the Commission to grant an exemption if 1) the exemption is authorized by law, 2) will not present an undue risk to the public health and safety, 3) is consistent with the common defense and security, and 4) special circumstances are present as specified in 10 CFR § 50.12(a)(2). The criteria in § 50.12 encompass the criteria for an exemption in 10 CFR §§ 70.17(a) and 74.7, the specific exemption requirements for Parts 70 and 74, respectively. Therefore, by demonstrating that the exemption criteria in § 50.12 are satisfied, this request also demonstrates that the exemption criteria in §§ 52.7, 70.17(a) and 74.7 are satisfied.

Evaluation Against Exemption Criteria

1) This exemption is not inconsistent with the Atomic Energy Act or any other statute and is therefore authorized by law.

2) An exemption from the requirements of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety. The exemption would treat the COL applicant similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicant's MC&A program under Subpart B to Part 74. Therefore, the exemption from 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety.

3) An exemption from the requirements of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not be inconsistent with the common defense and security. The exemption would treat the COL applicant similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicant's MC&A program under Subpart B to Part 74. Therefore, the exemption from §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 is consistent with the common defense and security.

4) The exemption request involves special circumstances under 10 CFR § 50.12(a)(2)(ii). That subsection defines special circumstances as when "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." Since the Commission determined that the requirements in 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 are

unnecessary for Part 50 applicants, those requirements are also unnecessary for Part 52 applicants.

As demonstrated above, the exemption complies with the requirements of 10 CFR §§ 50.12, 52.7, 70.17, and 74.7. For these reasons, approval of the requested exemption is requested from the regulations of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51, as described herein.