

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
FLORIDA POWER AND LIGHT COMPANY) Docket Nos. 50-250 and 50-251
(Turkey Point Units 3 and 4))
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EXEMPTION

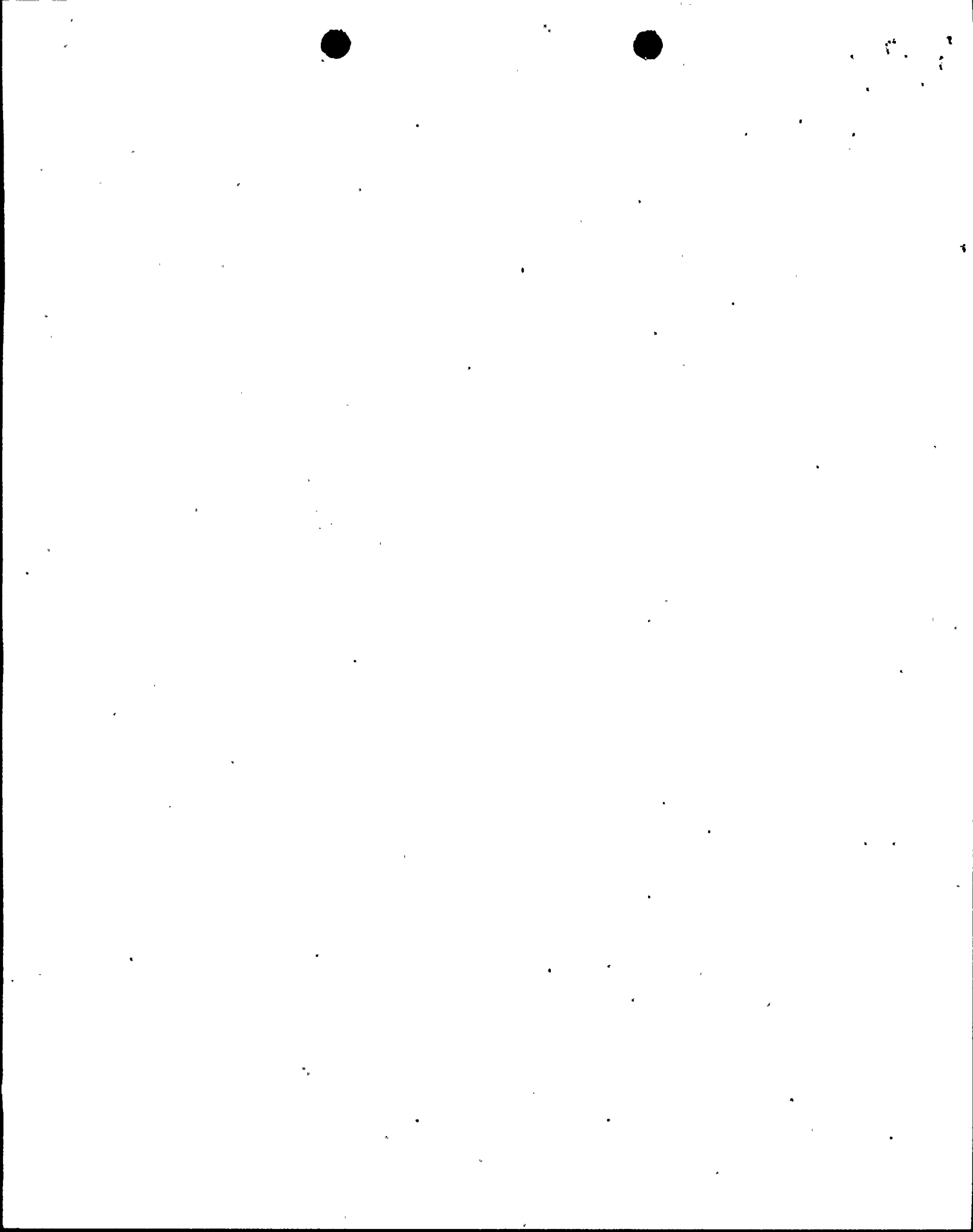
I.

Florida Power and Light Company (the licensee) is the holder of Facility Operating Licenses Nos. DPR-31 and DPR-41, which authorize operation of Turkey Point Units 3 and 4, respectively (the facility), at a steady-state reactor power level not in excess of 2300 megawatts thermal. The facility is a pressurized-water reactor located at the licensee's site in Dade County, Florida. The licenses require among other things that the facility comply with all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect.

II.

In exemptions dated March 27, 1984, and August 12, 1987, concerning the requirements of Section III.G, Appendix R to 10 CFR Part 50, the NRC staff approved the use of 1-hour-rated fire barriers in lieu of 3-hour-rated fire barriers in certain outdoor areas at Turkey Point Units 3 and 4. In addition, the staff found that, for certain outdoor areas not protected by automatic fire detection and suppression systems, separation of cables and equipment and

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associated circuits of redundant trains by a horizontal distance of 20 feet free of intervening combustibles provided an acceptable level of fire safety.

On the basis of the results of the industry's Thermo-Lag fire endurance testing program, the licensee concluded that the outdoor Thermo-Lag fire barrier designs cannot achieve a 1-hour fire-resistive rating but can achieve a 30-minute fire-resistive rating when exposed to a test fire that follows the American Society for Testing and Materials Standard E-119 time-temperature curve. Because of these test results, the licensee in a letter dated June 15, 1994, requested an exemption to use 30-minute fire barriers for outdoor applications in lieu of the 1-hour-rated fire barriers previously approved; however, the licensee withdrew the exemption request by letter dated June 28, 1996.

In a letter dated July 31, 1997, as supplemented on July 2, October 27, and December 9, 1998, the licensee requested an exemption from the requirements pertaining to the 3-hour-rated fire barriers required by Section III.G.2.a, Appendix R to 10 CFR Part 50, for fire zones 79 (partial), 80 (partial), 82, 84 (partial), 85 (partial), 88 (partial), 89 (partial), 91, 92, 105, and 117 in the turbine building. The licensee requested that the NRC approve the following fire protection schemes as alternatives to the protection required by Section III.G.2 of Appendix R to 10 CFR Part 50: (1) separation of cables and equipment and associated circuits of redundant post-fire safe-shutdown trains within the turbine building fire zones 79 (partial), 80 (partial), 82, 84 (partial), 85 (partial), 88 (partial), 91, 92, and 105 between column lines A and E-1 by a fire barrier having a minimum 1-hour fire resistive rating; (2) separation of cables and equipment and associated circuits of redundant post-fire safe-shutdown trains within the turbine building fire zones 79 (partial), 84 (partial), 88 (partial), and 89 (partial) between column lines E-1 and Jc by a fire barrier having a minimum 25-minute fire resistive rating; and (3) separation of cables and equipment and associated circuits of redundant post-fire safe-

shutdown trains within the turbine building above the turbine operating deck, fire zone 117, by a fire barrier having a minimum 25-minute fire resistive rating. This request is based on the following: (1) for the turbine building between column lines A and E-1, automatic fixed water suppression systems would be provided for the major fire hazards (combustible sources) and the turbine lube oil equipment, and automatic wet pipe sprinkler protection would be provided for area coverage, including the turbine lube oil distribution piping locations as described in the enclosed safety evaluation; and (2) for the turbine building between column lines E-1 and Jc, an automatic wet pipe sprinkler protection would be provided.

III.

The underlying purpose of Section III.G.2.a, Appendix R to 10 CFR Part 50, is to provide reasonable assurance that one safe-shutdown train and associated circuits used to achieve and maintain safe-shutdown are free of fire damage.

On the basis of the staff's supporting safety evaluation of the licensee's submittals, the staff concludes that the exemption from the requirements of Section III.G.2.a of Appendix R to 10 CFR Part 50, for fire zones 79 (partial), 80 (partial), 82, 84 (partial), 85 (partial), 88 (partial), 89 (partial), 91, 92, 105, and 117 as requested by the licensee, provides an adequate level of fire safety and presents no undue risk to public health and safety. In addition, the staff concludes that the underlying purpose of the rule is achieved.

IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to public health and safety, and is consistent with the common defense and security. In addition, the Commission has determined that special circumstances are present in that application of the regulation is not




necessary to achieve the underlying purpose of the rule. Therefore, the Commission hereby grants Florida Power and Light Company an exemption from the requirements of Section III.G.2.a of Appendix R to 10 CFR Part 50, as requested in its previously-referenced submittals, for fire zones 79 (partial), 80 (partial), 82, 84 (partial), 85 (partial), 88 (partial), 89 (partial), 91, 92, 105, and 117.

Pursuant to 10 CFR 51.32, the Commission has determined that granting this exemption for fire zones 79 (partial), 80 (partial), 82, 84 (partial), 85 (partial), 88 (partial), 89 (partial), 91, 92, 105, and 117, will not have a significant effect on the quality of the human environment (63 FR 65619).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 22nd day of December 1998