

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

May 15, 1968

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Subject: TURKEY POINT NUCLEAR GENERATING UNITS NO. 3 and NO. 4

Dear Dr. Seaborg:

At its ninety-seventh meeting, May 9-11, 1968, the Advisory Committee on Reactor Safeguards reviewed the proposal of Florida Power and Light Company in Supplements 14, 15, and 16 to their application for authorization to construct Turkey Point Nuclear Generating Units No. 3 and No. 4. The Committee had previously considered the project at its seventy-ninth meeting, November 10-12, 1966, and its eighty-first meeting, January 12-14, 1967, as reported to you by letter on January 18, 1967. During its review, the Committee had the benefit of discussions with representatives of Florida Power and Light Company and its consultants, Westinghouse Electric Corporation, Bechtel Corporation, and the AEC Regulatory Staff. The Committee also had the benefit of the documents listed.

In the original application to construct Turkey Point Nuclear Generating Units No. 3 and No. 4, the applicant had included in the exclusion zone land not owned by him. At the Public Hearing held on February 28-March 3, 1967, the Atomic Safety and Licensing Board questioned the ability of the applicant to control access to this land. In Supplements 14-16, the applicant proposes to revise the exclusion area and to install a filter system in the containment structure. The applicant now proposes to reduce the exclusion zone to land he owns and to the waters of Biscayne Bay. In order to reduce post-accident iodine concentrations at the nearest exclusion zone boundary to below the 10 CFR Part 100 guideline values, he proposes to install an iodine removal system in each containment building.

The iodine removal system consists of three filter units, each containing a demister filter bank, a high efficiency particulate air filter bank, and a charcoal filter bank installed with an electric-motor-driven blower and air diffuser in a common enclosure. The units are designed to operate under the adverse conditions expected in the containment in the case of

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a loss-of-coolant accident. Provisions have also been made to insure operation in case of loss of outside power. Arrangements for maintenance and testing appear adequate. Calculations, using a highly conservative model, indicate that the radiation dose to the thyroid at and beyond the nearest site boundary will be well within the guidelines of 10 CFR Part 100.

The Advisory Committee on Reactor Safeguards believes the proposed iodine removal system provides assurance that the proposed reactors can be built at the Turkey Point site with the modified exclusion zone so that, with suitable attention to the items discussed in our letter of January 18, 1967, they can be operated without undue risk to the health and safety of the public.

Mr. Harold Etherington did not participate in review of the Turkey Point Nuclear Generating Units No. 3 and No. 4.

Sincerely yours,

/s/ Carroll W. Zabel

Carroll W. Zabel
Chairman

References:

1. Supplement 14, Preliminary Safety Analysis Report, Turkey Point Nuclear Generating Units No. 3 and No. 4.
2. Supplement 15, Preliminary Safety Analysis Report, Turkey Point Nuclear Generating Units No. 3 and No. 4.
3. Supplement 16, Preliminary Safety Analysis Report, Turkey Point Nuclear Generating Units No. 3 and No. 4.