

UNITED STATES NUCLEAR REGULATORY COMMISSION
CONSUMERS POWER COMPANY
PALISADES PLANT
DOCKET NO. 50-255
NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Provisional Operating License No. DPR-20 issued to Consumers Power Company (the licensee or CPCo), for operation of the Palisades Nuclear Generating Plant (Palisades) located in Van Buren County, Michigan.

IDENTIFICATION OF PROPOSED ACTION:

The amendment would consist of a conversion of the Provisional Operating License (POL) No. DPR-20 to a Full-Term Operating License (FTOL) with an expiration date for the FTOL to be 40 years from the date of issuance of the construction permit. The construction permit for Palisades was issued on March 14, 1967; therefore, the expiration date for the FTOL is March 14, 2007.

The amendment to the license is in response to the licensee's application dated January 22, 1974 for the conversion. The NRC staff has prepared an Environmental Assessment of the Proposed Action, "Environmental Assessment by the Office of Nuclear Reactor Regulation Relating to the Conversion of the Provisional Operating License to a Full-Term Operating License," Consumers Power Company, Palisades Plant, Docket No. 50-255 dated October 22, 1990.

SUMMARY OF ENVIRONMENTAL ASSESSMENT:

The NRC staff has reviewed the potential environmental impact of the proposed conversion of the POL to an FTOL for Palisades. This evaluation

considered the previous environmental studies, including the "Final Environmental Statement (FES) Related to Operation of Palisades Nuclear Generating Plant," issued in June 1972, a Final Addendum to the FES (NUREG-0343), issued in February 1978, and more recent NRC policy.

Radiological Impacts:

The staff concludes that the exclusion area, the low population zone and the nearest population center distances will likely be unchanged from those described in June 1972 Final Environmental Statement and the February 1978 Final Addendum to the FES. The area adjacent to the site is primarily agricultural land and is sparsely populated. The low population zone (LPZ), as defined by 10 CFR 100, extends a distance of 4,820 meters, or 3 miles, from the plant site. The minimum exclusion area distance to an uncontrolled area is 677 meters (2200 feet). The minimum exclusion area and LPZ distances form the bases for the site evaluation in accordance with 10 CFR Part 100 (FSAR Section 2.0). There are approximately 432 acres within the site boundary, all currently owned by Consumers Power Company. Consumers Power Company has sole control of the area within the site boundary for the purpose of excluding personnel or property.

Section 2.1.2 of the Palisades FSAR discusses the population density in and around the Palisades Plant. Table 2.10 of the Palisades FSAR provides current and estimated population density for all counties within a 50-mile radius of the Palisades Plant through the year 2000. A comparison of the FSAR data and the most current census and population growth estimates indicate that the data presented in Table 2.10 of the FSAR accurately estimated population changes to date. Although there are no reliable estimates for the population in the three counties (Berrien, Van Buren, and Allegan) immediately adjacent to the Palisades Plant site for the years between 2000 and 2007, recent

population growth and economic trends for southwestern Michigan do not indicate any significant change in population growth trends or to the economic composition of the area.

The probable off-site radiation exposure received by a member of the general public from the operation of the Palisades Plant was assessed and is documented in the Palisades FSAR and the FES. This assessment was based on the assumed 40-year life for the plant. The FES concluded that the operation of the Palisades Plant will contribute only an extremely small increment to the radiation dose that area residents receive from natural background. The FES also noted: "Since fluctuations of the natural background dose may be expected to exceed the small dose increment contributed by the Plant, this increment will be unmeasurable in itself and will constitute no demonstrable meaningful risk...." To ensure that exposure of members of the general public to radioactive material released by the operation of the Palisades Plant is kept as low as is reasonably achievable, the Plant maintains a radiological environmental monitoring program in compliance with the requirements of Section IV of Appendix I to 10 CFR Part 50.

Based on the operating history of the Palisades Plant and the conclusions of the FES, the total radiation dose to any member of the general public is not expected to be significantly affected by the conversion of the POL to a FTOL.

All plant employees are exposed to radiation caused by plant operation. The total exposure received by individual employees depends to a great extent upon the work assignment of the employee. To ensure that employee exposure is minimized, the Palisades Plant has implemented an effective exposure ALARA (As Low As Reasonably Achievable) Program. In addition, the plant has instituted administrative limits that require that the exposure received by individual

employees remain within the guidelines of 10 CFR Part 20. It is not expected that the issuance of the FTOL will materially affect employee exposure.

Accordingly, annual radiological impacts on man, both off-site and on-site, are not more severe than previously estimated in the FES and our previous cost-benefit conclusions remain valid.

Non-Radiological Impacts:

The staff reevaluated the non-radiological aspects of operation of the plant and transmission facilities. The effects of cooling system operation, fish impingement, thermal discharge effects, chemical discharge effects, endangered and threatened species, land use, terrestrial ecology, and transmission lines were evaluated. Effluent limitation and water quality monitoring at power plants are imposed by the EPA through the National Pollutant Discharge Elimination System (NPDES) Permit issued for each facility. An NPDES Permit for Palisades was issued by the State of Michigan and the staff's discussions in the environmental assessment rely on the findings made by the State in its impact review.

The staff also verified that the original cost/benefit analysis provided in the Final Environmental Statement and Final Addendum to the FES, and discussions with respect to commitment of resources and alternatives, are still valid.

FINDING OF NO SIGNIFICANT IMPACT:

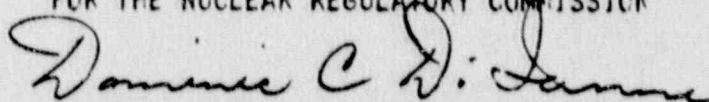
The staff has reviewed the proposed conversion of the POL to an FTOL for Palisades relative to the requirements set forth in 10 CFR Part 51. Based upon the environmental assessment, the staff concluded that there are no significant radiological or non-radiological impacts associated with the proposed action and that the proposed license amendment will not have a significant

effect on the quality of the human environment. Therefore, the Commission has determined, pursuant to 10 CFR 51.31, not to prepare an environmental impact statement for the proposed amendment.

For further details with respect to this action, see (1) the application for amendment dated January 22, 1974, (2) the Final Environmental Statement Related to Operations of Palisades Nuclear Generating Plant, issued June 1972, (3) the Final Addendum to the FES, issued February 1978, and (4) the Environmental Assessment Dated October 22, 1990. These documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., 20555 and at the Van Zoeren Public Library, Hope College, Holland, Michigan 49423.

Dated at Rockville, Maryland, this 22nd day of October 1990.

FOR THE NUCLEAR REGULATORY COMMISSION



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