



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

CONSUMERS POWER COMPANY

MIDLAND PLANT UNIT 1

DOCKET NO. 50-329

CONSTRUCTION PERMIT

Construction Permit No. CPPR-81

1. Pursuant to Section 103 of the Atomic Energy Act of 1954, as amended (the Act), and Title 10, Chapter 1, Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," and pursuant to the Initial Decision of the Atomic Safety and Licensing Board, the Atomic Energy Commission (the Commission) hereby issues a construction permit to the Consumers Power Company (the applicant) for a utilization facility (the facility), designed to operate at 2452 megawatts thermal, as described in the application and amendments thereto (the application), filed in this matter by the applicant and as more fully described in the evidence received at the public hearing upon that application. The facility, known as Midland Plant, Unit 1, will be located at the applicant's site on the south shore of the Tittabawassee River in Midland Township, Midland County, Michigan, adjacent to the Dow Chemical Company's main industrial complex in the city of Midland.
2. This permit shall be deemed to contain and be subject to the conditions specified in Sections 50.54 and 50.55 of said regulations; is subject to all applicable provisions of the Act, and rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the conditions specified or incorporated below:
  - A. The earliest date for the completion of Unit 1 of the facility is December 1, 1977 and the latest date for completion of the facility is December 1, 1978.
  - B. The facility shall be constructed and located at the site as described in the application, in Midland County, Michigan.
  - C. This construction permit authorizes the applicant to construct the facility described in the application, and the hearing record, in accordance with the principal architectural and engineering criteria set forth therein.

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- D. Pursuant to Section 105c (8) of the Act, the Commission has consulted with the Attorney General regarding the issuance of this construction permit. After said consultation, the Commission has determined that the issuance of this permit, subject to the conditions set forth in this subparagraph D, in advance of consideration of and findings with respect to matters covered in Section 105c of the Act, is necessary in the public interest to avoid unnecessary delay in the construction permit of the facility. At the time this construction permit is being issued an antitrust proceeding has been noticed, but antitrust hearings have not commenced. Therefore, the Commission has made no determination with respect to matters covered in Section 105c of the Act, including conditions, if any, which may be appropriate as a result of the outcome of any antitrust proceeding. On the basis of its finding made as a result of an antitrust proceeding, the Commission may continue this permit as issued, rescind this permit or amend this permit to include such conditions as the Commission deems appropriate. Consumers Power Company and others who may be affected hereby are accordingly on notice that the granting of this construction permit is without prejudice to any subsequent licensing action, including the imposition of appropriate conditions, which may be taken by the Commission as a result of the outcome of any antitrust proceeding. In the course of its planning and other activities, Consumers Power Company will be expected to conduct itself accordingly.
- E. The applicant shall comply with the following additional conditions for the protection of the environment:
- a. Modify the cooling water intake structure design to allow a reduction of the intake flow velocity to less than one foot per second to minimize fish loss.
  - b. Relocate the 138 kv transmission line from the Dow South Substation so as to utilize the same river crossing as the 345 kv lines.
  - c. At least two years prior to plant operations, initiate an ecological (including radiological) study of the site and environs to establish base line values. The study should have a scope and frequency which will:
    1. Identify the economically and environmentally important species, determine their abundance and life history when pertinent to the site, and define the extent and location of their habitat;

2. Characterize the ecological community, defining the community structure with special attention to stability or fluctuations; and
  3. Obtain background data on the radioactivity in important indicator organisms.
- d. Develop a surveillance and monitoring program of significant parameters based upon the ecological study which will document the impact of the plant operations upon the ecology of the site and environs. The ecological surveillance and monitoring program actions to be developed should serve to identify actual effects on the environment from plant operations.
3. This permit is subject to the limitation that a license authorizing operating of the facility will not be issued by the Commission unless (a) the applicant submits to the Commission, by filing an application for an operating license or by amendment to the application for a license to construct and operate the facility, a complete final safety analysis report, portions of which may be submitted and evaluated from time to time; (b) the Commission finds that the final design provides reasonable assurance that the health and safety of the public will not be endangered by the operation of the facility in accordance with procedures approved by it in connection with the issuance of said license; and (c) the applicant submits proof of financial protection and the execution of an indemnity agreement as required by Section 170 of the Act.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by  
Roger S. Boyd

*for* A. Giambusso, Deputy Director  
for Reactor Projects  
Directorate of Licensing

Date of Issuance: DEC 15 1972