

W. R. Boris
Vice President



Consumers
Power
Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 786-1111

April 18, 1972

DOCKET NOS. 50-329 AND 50-330

Mr. R. C. DeYoung
Assistant Director for
Pressurized Water Reactors
Division of Reactor Licensing
Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. DeYoung:

Applicant has applied for a construction permit for the Midland Plant, Docket Nos. 50-329 and 50-330; Advisory Committee on Reactor Safety review of the Plant has been completed (reports dated June 18, 1970 and September 23, 1970); the AEC Staff Safety Evaluation has been completed (November 12, 1970 and January 14, 1972) and the AEC Staff's Final Environmental Statement has been issued (March 27, 1972). Completion of Atomic Safety and Licensing Board review of environmental matters and a few remaining radiological issues is scheduled to begin May 17, 1972.

Applicant received a construction exemption, dated July 30, 1970, permitting certain construction activities. In 1970, Applicant performed portions of the following site activities, pursuant to the then effective 10 CFR §50.10(b)(1) and (3) and pursuant to the exemption:

Clearing and grubbing of land, removal of existing structures, sealing of wells, river widening work, diversion of existing surface drains and construction of temporary facilities. (80% complete)

Site excavation, backfill and recompaction, installation of mud slabs, waterproof membrane and working mat, placing of forms and placing and splicing of

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reinforcing bars for the nuclear structures and construction work on non-nuclear facilities including the turbine building, turbine generator foundations, construction of roadways, railroad spurs, transmission lines and circulation water cooling system. (5% complete)

Placing of concrete for the substructure of the auxiliary building up to Elevation 614 (75% complete), placing of concrete for the tendon galleries for the Units 1 and 2 reactor buildings (65% complete), and placing of concrete for the foundations for the Units 1 and 2 reactor buildings (20% complete). This work includes the placing of embedded items in the foundation slab and walls including reinforcing steel, cadweld connectors, sump liner plates, thickened floor liner plate, liner plate weld backing strips, anchor bolts, door frames, beam brackets, waterstops, pipe sleeves, reactor building mat columns, the tower crane mast section for the temporary crane, and auxiliary building pipe tunnels.

In November 1970, because of the prolonged hearing that appeared inevitable, all site activities except for necessary material preservation and material receiving were suspended. Such activities remain suspended at this time.

Applicant requests the Commission to consider granting an exemption pursuant to 10 CFR §50.12(a) for limited activities previously allowed by 10 CFR §50.10(b) but now prohibited by 10 CFR §50.10(c) and to allow Applicant to retain the construction exemption, dated July 30, 1970. It is not Applicant's intention to resume work at this time. However, as more fully described in this letter, Applicant believes that significant benefits will result if it is able to resume the site activities described herein prior to receipt of the construction permit. Applicant, therefore, requests that the Commission hold in abeyance authorization to resume work until such time as the approximate date of receipt of the construction permit is sufficiently predictable and Applicant makes a supplemental filing specifying the necessary date for the authorization.

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The requested work, in addition to that included in the construction exemption, dated July 30, 1970, consists of:

1. A general restoration of the site including the removal of silt and sloughed-off earth at the edges of the containments and auxiliary building excavation and the repair and improvement of existing construction roads, parking areas and storage areas.
2. Removal of weatherproof coverings and straw and sand coverings installed when construction was suspended.
3. Placement and compaction of fill to Elevation 634 on the Plant site to permit the construction of temporary facilities on the final grade.
4. Construction of temporary facilities including office buildings, change houses, warehouse and parking and storage areas.
5. Placement of concrete for turbine building pedestals and foundation mat to Elevation 614.
6. Prefabrication of assemblies including liner plate, reinforcing bar and piping.
7. Installation of underground pipe tunnels and circulating water pipe including necessary excavation and backfill.

The factors to be considered in making such determination as provided in 10 CFR §50.12(b) are as follows:

- (1) Whether conduct or continuation of the activities will give rise to a significant adverse impact on the environment and the nature and extent of such impact, if any.

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As a result of activities conducted in 1970 pursuant to the then effective 10 CFR §50.10(b) and the construction exemption, construction was commenced on the site, topsoil was removed or disturbed, vegetation was removed, animal life was dislocated and concrete was poured. A description of the present ecology of the site is contained in Section 3.1 of Applicant's Supplemental Environmental Report, filed October 19, 1971. As described in the Final Environmental Statement, dated March 1972:

"The major terrestrial impact from the Midland Project has been realized as a result of preliminary site preparation and construction. These activities have resulted in the loss of approximately 90% of the native vegetation cover and habitats previously on the 1190-acre site. The soil types and productivity have been changed, with the remnant of sand and clay substrate supporting a ground cover of sparse grasses and herbaceous weeds, i.e., an early-stage forb community." p. V-12

The Final Environmental Statement additionally pointed out that "The greater portion of native wildlife has been displaced from the site." p. V-13. It is clear that any significant environmental impact from construction activities has occurred and the incremental impact of these site activities will be insignificant.

All of the contemplated site activities except removal of some borrow from areas previously cleared and stripped will be in the portion of the site located in the industrial zone of Midland Township on land with marginal soil productivity which has already been extensively disturbed by prior site activities. Site activities will, of course, result in temporary adverse effects of the type associated with any construction project, e.g., transportation of materials to and from the site and dust and noise associated with the construction. However, as described

in Section 4.1 of the Supplemental Environmental Report, these effects should be minimal, particularly because the site activities requested herein are not to be performed near the perimeter of the site but are a substantial distance from the site's boundary with residential areas. It must, therefore, be concluded that conduct of the activities included in the present exemption and of those described above will not give rise to any significant adverse impact on the environment.

- (2) Whether redress of any adverse environmental impact from conduct or continuation of the activities can reasonably be effected if necessary.

Should it become necessary to effect redress for any adverse environmental impact, Applicant would promptly take necessary measures. None of the work on the Plant structures will be above Elevation 614 which will be twenty feet below finished grade. The construction buildings on the site are intended to be temporary and could easily be removed. The effort presently necessary to restore the site to ordinary industrial usage is not expected to significantly increase as a result of the additional work.

- (3) Whether conduct or continuation of the activities would foreclose subsequent adoption of alternatives.

Site activities contemplated herein would be limited and would not be expected to foreclose any foreseeable alternatives. As discussed in the Final Environmental Statement, the Plant's radioactive waste system design is within the limits contemplated by Appendix I to 10 CFR Part 50, the accidents evaluated for the Plant will not have significant adverse effects and the thermal discharges will be within approximately 1°F of the ambient river temperature. However, even if the Atomic Safety

and Licensing Board were to determine that any of the systems regulating these effects required modifications, the activities requested herein would not foreclose any such modifications beyond whatever foreclosure may have resulted from work already performed.

- (4) The effect of delay in conducting the activities on the public interest, including the power needs to be served by the proposed facility, the availability of alternative sources, if any, to meet these needs on a timely basis, and delay costs to the Applicant and to consumers.

Schedule and Cost with Site Construction Exemption

The Plant construction schedule presently contemplates that the site construction described above and previously permitted under 10 CFR §50.10(b) and the construction exemption would be done during the late summer and possibly the fall of 1972. Conservatively assuming receipt of the construction permit as late as December 1972, performance of pre-permit site work would result in commercial operation of Unit 1 in May 1977 and of Unit 2 one year later. The estimated Plant cost under the above conditions is \$554,000,000.

The above-mentioned commercial operation dates will add 486 MWe and 815 MWe to the Michigan Pool generation capabilities in 1977 and 1978 respectively and the analysis of the Pool's load and capability (See Table I) shows the Pool Reserve to be 18.1% during the summer of 1977 and 17.9% in the summer of 1978. This percentage reserve is within the range of the Pool's desired minimum reserve of 18%.

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Schedule and Cost without Site Construction Variance

Without the pre-permit site construction exemption, no site work can commence until receipt of the construction permit. Assuming the construction permit is granted in December 1972 and the pre-permit site work is not permitted, the commercial operation dates of both units will be delayed by eight months until January 1978 and January 1979. This delay is due to the seasonal weather impact on the construction work and the addition to the critical path of the site work previously permitted under the exemption and the regulations.

The estimated costs of the Plant under the above conditions would be increased by \$30,000,000 to a level of \$584,000,000. This increase is due principally to escalation and interest during construction because of a longer construction schedule duration. In addition to this increase in the cost of the Plant, Applicant as described in Sections 5.1, 5.2 and 5.3 of the Supplemental Environmental Report would be required to operate its older, less efficient units more often or purchase power from the older, less efficient units on other systems. This would have the effect of increasing the cost of electricity and increasing emissions from fossil-fired units during the eight-month period.

Review of Table I shows that the Pool's reserve would be 14.9% in the summer of 1977 and 12.8% in the summer of 1978 if the Midland units are delayed by eight months. As can be seen on Table I, this would result in a deficiency of approximately 480 MW in 1977 and a deficiency of 815 MW in 1978 from the 18% reserve level.

To maintain the 18% reserve, it would be necessary to build additional capacity for the Pool in 1977 and 1978, probably in the form of

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combined cycle, oil-fired units or to obtain sufficiently secure commitments of power from adjacent systems. Either of these alternatives would have the cost and environmental effects described in Sections 5.1, 5.2 and 5.3 of Applicant's Supplemental Environmental Report. Additionally, as described in Section 5.3, the availability of such large blocks of power from interconnected systems is at best a matter of conjecture. In summation, the cost of the eight-month delay would be significantly in excess of the \$30,000,000 directly related to increase in Plant costs.

Applicant believes that continuation of its present exemption and issuance of a new exemption in the manner described herein is authorized by law, will not endanger life or property or the common defense and security and is otherwise in the public interest.

Yours very truly,

/s/ W. R. Boris

WRB/pb

W. R. Boris

STATE OF MICHIGAN)
) SS.
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 20th day of April, 1972 by W. R. Boris, Vice President of Consumers Power Company, a Michigan corporation, on behalf of the corporation.

/s/ Aileen R. Nazaruk

Aileen R. Nazaruk
Notary Public, Jackson County, Michigan
My Commission Expires April 30, 1973

T A B L E I

CONSUMERS-EDISON LOADS AND CAPABILITIES
(As of 4-7-72)

Item	1977 Summer			1978 Summer			Remarks
	CP	DE	Pool	CP	DE	Pool	
<u>A. With Construction Exemption</u>							
Owned Capability	6788	10743	17531	7603	11343	18946	<u>By May 1, 1977 -</u> Midland 1 at 486 MW
Pool Unit	(292)	292	-	(506)	506	-	
Total Capability	<u>6496</u>	<u>11035</u>	<u>17531</u>	<u>7097</u>	<u>11849</u>	<u>18946</u>	<u>By May 1, 1978 -</u>
Load	5500	9345	14845	6020	10055	16075	Midland 2 at 815 MW
Reserve	996	1690	2686	1077	1794	2871	DE unit at 600 MW
% Reserve	18.1	18.1	18.1	17.9	17.9	17.9	
<u>B. Without Construction Exemption</u>							
Owned Capability	6302	10743	17045	6788	11343	18131	<u>By Jan. 1, 1978 -</u> Midland 1 at 486 MW
Pool Unit	15	(15)	-	-	-	-	
Total Capability	<u>6317</u>	<u>10728</u>	<u>17045</u>	<u>6788</u>	<u>11343</u>	<u>18131</u>	<u>By May 1, 1978 -</u>
Load	5500	9345	14845	6020	10055	16075	DE unit at 600 MW
Reserve	817	1383	2200	768	1288	2056	<u>By Jan. 1, 1979 -</u>
% Reserve	14.9	14.9	14.9	12.8	12.8	12.8	Midland 2 at 815 MW

UNITED STATES OF AMERICA

ATOMIC ENERGY COMMISSION

In the Matter of
Consumers Power Company
Application for Reactor
Construction Permit and
Operating License

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Docket No. 50-329
Docket No. 50-330

CERTIFICATE OF SERVICE

I hereby certify that copies of Applicant's filing for construction exemptions pursuant to 10 CFR §50.12 have been served on the following by deposit in the United States mail, first class, this 21st day of April, 1972:

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Atomic Safety and Licensing Board Panel
U. S. Atomic Energy Commission
Washington, D. C. 20545

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/s/ John K. Restrict

John K. Restrict
Attorney
Consumers Power Company