

AUG 18 1977

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Docket No. 50-341

Detroit Edison Company
ATTN: Dr. Wayne H. Jens, Manager
Engineering and Construction
2000 Second Avenue
Detroit, Michigan 48226

Gentlemen:

SUBJECT: ORDER EXTENDING CONSTRUCTION COMPLETION DATE

In response to your request of July 8, 1976, the Nuclear Regulatory Commission has issued an Order extending the construction completion date for the Enrico Fermi Atomic Power Plant, Unit No. 2 facility. In lieu of the latest completion date of September 30, 1976, as specified previously in Construction Permit No. CPPR-87, the latest completion date has been extended to January 1, 1982.

A copy of the Order, the staff safety evaluation, negative declaration and environmental impact appraisal are enclosed for your information. The Order and the negative declaration have been transmitted to the Office of the Federal Register for publication.

Sincerely,

Original Signed by

John F. Stolz, Chief
Light Water Reactors Branch No. 1
Division of Project Management

Enclosures:

- 1. Order Extending Completion Date
- 2. Staff Safety Evaluation
- 3. Negative Declaration
- 4. Environmental Impact Appraisal

cc: See page 2

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Detroit Edison Company

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Mr. Gary Williams
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THE DETROIT EDISON COMPANY
(ENRICO FERMI ATOMIC POWER PLANT, UNIT NO. 2)

DOCKET NO. 50-341

ORDER EXTENDING CONSTRUCTION COMPLETION DATE

The Detroit Edison Company is the holder of Construction Permit No. CPPR-87 issued by the Atomic Energy Commission* on September 26, 1972, for construction of the Enrico Fermi Atomic Power Plant, Unit No. 2 presently under construction at the Company's site in Monroe County, Michigan.

On July 8, 1976, the Company filed a request for an extension of the completion dates because construction has been delayed due to (1) labor problems, (2) delivery problems, and (3) inadequate funds. This action involves no significant hazards consideration; good cause has been shown for the delay; and the requested extension is for a reasonable period, the bases for which are set forth in a staff evaluation, dated

Copies of the above documents and other related material are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555 and at the Monroe County Library System, Reference Department, 3700 South Custer Road, Monroe, Michigan 48161.

* Effective January 20, 1975, the Atomic Energy Commission became the Nuclear Regulatory Commission and Permits in effect on that day were continued under the authority of the Nuclear Regulatory Commission.

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IT IS HEREBY ORDERED THAT THE latest completion date for CPPR-87
is extended from September 30, 1976 to January 1, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
D. B. Vassallo

D. B. Vassallo, Assistant Director
for Light Water Reactors
Division of Project Management

Date of Issuance: **AUG 18 1977**

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Docket No. 50-341

EVALUATION OF REQUEST FOR EXTENSION
OF THE CONSTRUCTION PERMIT FOR THE
ENRICO FERMI ATOMIC POWER PLANT
UNIT NO. 2

Introduction

On July 8, 1976, The Detroit Edison Company filed a request for an extension of the latest completion date of the Construction Permit for Fermi Unit No. 2, CPPR-87, from September 30, 1976 to September 30, 1982. The Construction Permit for Unit No. 2, CPPR-87, was issued on September 26, 1972, with a latest completion date of September 30, 1976. The project had begun prior to the issuance of the construction permit under authority of exemption orders issued on October 15, 1970 and on April 19, 1971, pursuant to Sections 50.10 and 50.12 of the Commission's regulations.

In accordance with 10 CFR Section 50.55(b), the staff, having found good cause shown, is extending the latest completion date to January 1, 1982, for the reasons stated below.

Analysis

In response to the staff's request, the Detroit Edison Company has provided in its letter dated December 20, 1976, specific information regarding the delays incurred to date compared to the original completion of construction date and the plans to complete construction.

The requested extension of the latest completion date to September 30, 1982, would result in an additional six years to complete construction of Fermi 2 compared to the original date of September 30, 1976. Licensee estimated that the plant will be ready for commercial operation by September 30, 1980 and allows a 2 year contingency to September 30, 1982 for uncertainties in making load forecasts and in obtaining funds for completion of construction. Fuel loading date is currently estimated to be January 1, 1980, 9 months before the commercial operation date.

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Based on the staff's definition of completion of construction as the fuel loading date, we considered an extension of the latest construction completion date to January 1, 1982, rather than September 30, 1982, as requested by licensee's letters of July 8 and December 20, 1976.

We have evaluated the causes for delays incurred since issuance of Construction Permit CPPR-87 on September 26, 1972. Construction was started in 1970 under exemptions granted on October 15, 1970 and April 19, 1971. The Construction Permit specified a latest construction completion date of September 30, 1976.

During 1974, the Detroit Edison Company had difficulty obtaining funds for construction at rates which were considered reasonable. Accordingly, construction expenditures were reduced so that by November 1974, site manpower was 152 persons and the plant was about 45 percent completed. At this time construction was essentially halted and fuel loading date was estimated to be August 1978, a delay of 22 months. By May 1975, licensee determined that the fuel loading date would be deferred from August 1978 to January 1, 1980 (17 months), because of continued financial difficulties. The difficulty in obtaining funds for construction during 1974 and 1975 has been experienced by many licensees in addition to the Detroit Edison Company and is considered by the staff to be good cause for the 39 month delay in completion of construction.

The interval from January 1, 1980 to January 1, 1982 is the difference between the "best estimate" completion date and the "latest" completion date and is included as an allowance for the uncertainties in obtaining funds and predicting load several years in the future. The rate of increase of system loads has decreased for many utilities in addition to the Detroit Edison Company during recent years because of increased energy costs and energy conservation measures. Therefore, uncertainty in predicting load, as well as uncertainty in obtaining funds are considered by the staff to be good cause for allowing 24 months between the "best estimate" completion date and "latest" completion date.

In summary, in 1974, difficulties in obtaining construction funds resulted in a halt of construction and an estimated 22 month delay in the completion date. In 1975 continued difficulty in obtaining funds resulted in another 17 month delay. Uncertainties in these estimated dates resulted

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in a 24 month allowance to the latest completion date. The sum of these delays (63 months) accounts for the total delay between September 30, 1976 and January 1, 1982. The staff considers these delays to be reasonable.

Regarding plans to complete construction, licensee is negotiating for the sale of a 20 percent interest in the Fermi 2 plant to two Michigan rural electric cooperatives. Construction was resumed in April 1977. The best estimate for completing the plant from 45 percent to 100 percent is 32 months with an additional allowance of 24 months for uncertainties. It required 48 months to bring the plant to 45 percent completion status, based on actual experience in constructing the plant between November 1970 and November 1974. The staff considers 56 months to be a reasonable time interval for completing construction of the plant.

As a result of the staff's review of the Final Safety Analysis Report to date, and considering the nature of the delays, we have identified no area of significant safety considerations in connection with the extension of the construction permit completion date for Enrico Fermi Atomic Power Plant, Unit No. 2.

The staff finds that because the request is merely for more time to complete work already reviewed and approved for Construction Permit CPPR-87 no significant hazards consideration is involved in granting the request and thus prior public notice of this action is not required.

Conclusion

The Commission's Staff has reviewed the information provided in the applicant's submittal, and we conclude that the factors discussed above are reasonable and constitute good cause for delay; and that extension of construction of Fermi 2 is justifiable.

The staff finds that this action does not involve a significant hazards consideration, and that good cause exists for the issuance of an Order extending the completion date.

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NEGATIVE DECLARATION

SUPPORTING: EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-87

EXPIRATION DATE FOR THE

ENRICO FERMI ATOMIC POWER PLANT, UNIT NO. 2

DOCKET NO. 50-341

The U. S. Nuclear Regulatory Commission (the Commission) has reviewed the Detroit Edison Company's (permittee) request to extend the expiration date of the construction permit for the Enrico Fermi Atomic Power Plant, Unit No. 2 (CPPR-87) which is located in Monroe County, Michigan. The permittee requested a six year extension to the permit through September 30, 1982 to allow for completion of construction of the Fermi plant.

The Commission's Division of Site Safety and Environmental Analysis (staff) has prepared an environmental impact appraisal relative to this change to CPPR-87. Based upon this appraisal, the staff has concluded that an environmental impact statement for this particular action is not warranted because pursuant to the Commission's regulations in 10 CFR Part 51 and the Council of Environmental Quality's Guidelines, 40 CFR 1500.6, the Commission has determined that this change to the construction permit is not a major federal action significantly affecting the quality of the human environment.

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The environmental impact appraisal is available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555; and at the Reference Department of the Monroe County Library System, 3700 South Custer Road, Monroe, Michigan 48161.

Dated at Bethesda, Maryland, this 18 day of AUG 1977

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by

George W. Knighton, Chief
Environmental Projects Branch 1
Division of Site Safety and
Environmental Analysis

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ENVIRONMENTAL IMPACT APPRAISAL

BY THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS

SUPPORTING EXTENSION OF CONSTRUCTION PERMIT CPPR-87

ENRICO FERMI ATOMIC POWER PLANT, UNIT NO. 2

DOCKET NO. 50-341

ENVIRONMENTAL IMPACT APPRAISAL

Description of Proposed Action

By letter dated July 8, 1976 the applicant, Detroit Edison Company, filed a request with the Nuclear Regulatory Commission (NRC) to extend the completion date specified in Construction Permit No. CPPR-87 for the Enrico Fermi Atomic Power Plant, Unit No. 2. The action proposed is the issuance of an order providing for an extension of the latest completion date of the construction permit from September 30, 1976 to September 30, 1982.

The staff's Final Environmental Statement relating to Enrico Fermi Atomic Power Plant, Unit No. 2, which was published in July 1972, assumed commercial operation in October 1975. The applicant now plans to have the proposed unit in commercial operation by September 1980. The applicant attributes this almost five-year delay to financial difficulties and reduced projected load growth. However, because uncertainties still exist with respect to the September 1980 date, the applicant has requested a latest completion date of 1982 so as not to require a future revision if delays should arise.

Environmental Impact of the Proposed Action

A. Need for Power

The Enrico Fermi Atomic Power Plant, Unit No. 2, is now scheduled to begin commercial operation in September 1980 and will have a net electrical output of 1093 MWe. The staff has reassessed the need for the Fermi Unit No. 2 with respect to its planned operation in 1980.

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The Detroit Edison Company (DE) is an integral part of a larger system--Michigan Electric Coordinated System (MECS)---the staff concludes that a determination of need for Fermi 2 should be viewed in the context of capacity and peak demand on the MECS.¹

The staff has reviewed MECS's latest capacity plans and demand projections and concludes that in order to maintain minimum reliability on the MECS, Fermi 2 will be needed within a reasonable time frame of the new proposed operating date.

The staff bases this conclusion on its review of several forecasting studies which provide demand projections pertinent to the MECS. This review examined forecasts prepared by the Michigan Public Service Commission² and the Governor's Advisory Commission on Electric Power Alternatives.³ Both analyses were prepared specifically for the MECS and represent the product of responsible entities of the Michigan State Government. In addition, the staff has reviewed a forecast of electricity growth for the State of Michigan. This forecast was prepared by the Energy Division of the Oak Ridge National Laboratory.⁴ Since the MECS generates about 90% of all the electricity sold in Michigan, it is the staff's belief that these results are highly transferable to the MECS. And finally, the staff has considered the Federal Energy Administration's forecast for the east north central region.⁵ Although this forecast is not as precise geographically (evaluates growth in a five state region), it is considered here as a secondary reference check on the preceding analyses. In each instance, these independent forecasts indicate that the projections submitted by DE and the MECS are conservative reflections of future growth. For example, with respect to the MECS, the utilities' own forecasts understate 1982 peak demand relative to these projections by between about 600 to 3000 MWe. Thus, the staff concludes that the demand projections on which DE has based its need analysis are conservative and it is reasonable to conclude that the unit will be needed in the proposed time frame.

MECS is comprised solely of DE and Consumers Power Company (CP). These two utilities service approximately 90% of Michigan's total electrical needs. They dispatch power as a single entity and coordinate and plan all transmission and generating equipment jointly.

²Michigan Public Service Commission, Evaluation of the Consumers Power and Detroit Edison 1974 Load Growth Forecasts, Staff Study 1974-4, December 1974.

³Governor's Advisory Commission on Electric Power Alternatives, Final Report, Facts and Recommendations, Lansing, Michigan, August 1976.

⁴A Regional Forecasting Model for Electric Energy, Oak Ridge National Laboratory, W.S. Chern and B.D. Holcomb, 1977.

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B. Community and Economic Impacts

The Final Environmental Statement for the Fermi Unit No. 2 includes an assessment of potential environmental, economic and community impacts due to site preparation and plant construction. The only environmental impacts possibly resulting from the requested extension would be those due to transposing the impacts in time or extending the total time the local community is subjected to temporary construction impacts. The staff concludes that environmental impacts associated with construction of the plant and described in the FES, i.e., housing, school facilities and transportation are not affected by the proposed extension. However, with respect to community impacts the decision to curtail construction between August 1974 and February 1977 did temporarily delay the anticipated economic stimulus to the local economy. Furthermore, the delay was undoubtedly disruptive and hindered orderly economic expansion at the local level. Countering these negative effects is the increased local payrolls and revenues flowing into the local economy because of the significant cost escalation of the project. For example, property taxes on Fermi 2 are now estimated at \$10 million per year versus a \$5 million estimate of 5 years ago. Thus, although the flow of monies into the local economy may have produced some disruptive effects that were previously unanticipated, the magnitude of these funds has likewise increased and the two effects are considered to be substantially offsetting. Thus, no significant change in impact is expected to result from the extension.

Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis and the NRC staff evaluation, it is concluded that there will be no environmental impact attributable to the proposed action other than that already predicted and described in the Commission's FES issued in July 1972 and the Board's Initial Decision of September 22, 1972. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.

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