



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
EDISON COMPANY )  
Fermi Plant )

Docket No. 50-341

AMENDED PETITION TO INTERVENE

Petitioner, Citizens for Employment and Energy, hereinafter referred to as CEE, petitions to intervene in this proceeding pursuant to Section 2.714 and other pertinent sections of the Nuclear Regulatory Commission's Rules of Practice, and states:

I

IDENTIFICATION OF PETITIONER  
AND ITS INTERESTS TO BE AFFECTED

Citizens for Employment and Energy (CEE)

1. CEE is an unincorporated association comprised of citizens and residents of Michigan, organizations whose memberships include residents of Michigan and residents of other states, and local units of government, all of whom are interested in the dissemination of information and stimulation of public awareness and involvement in the study of nuclear power and alternate sources of safe electrical energy generating sources.

At least one member of CEE resides within one mile of the Fermi 2 plant, other members residing at slightly greater distances. CEE also represents members residing in the service areas of the public power cooperatives that have purchased an interest in the proposed plant.

This petitioner has analyzed and studied, to the extent that information has been available, the proposed Fermi 2 plant and is concerned, as set forth in more specific detail below, that the construction and operation of the Fermi 2 plant will result in an unsafe and inefficient exercise of the use of atomic energy; that it will create deleterious and adverse effects upon the City of Monroe, other parts of Michigan and elsewhere; will contribute to and create adverse environmental effects which can be avoided; and will result in irretrievable and irreversible commitments of natural and other resources, which, considering all of the alternatives and circumstances including the alleged need for electrical power, would not be advantageous.

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## II

### INTERESTS ADVERSELY AFFECTED BY ACTION OF THE COMMISSION

2. Based upon the interests and concerns of the petitioner identified in (I) above, one or more of the direct interests of the petitioner will be adversely affected by the issuance of an operating license. These interests and how they may be affected are as follows:

(a) The economic interests of petitioner's members (particularly those residing near the plant) will be affected by the release of radiation from the plant through the following mechanisms:

- (1) low-level radiation releases during normal plant operations
- (2) releases of radiation through accidents in the plant
- (3) releases of radiation through industrial sabotage
- (4) releases of radiation through sabotage by outside terrorists of the plant proper or sabotage of spent fuel being transported from the plant
- (5) release of radiation through the transportation of spent nuclear fuel from the plant through the surrounding community.

(b) Radiation releases as specified in (a) above will adversely affect the property interests (both real and personal) of petitioner's members residing near the plant.

(c) Radiation releases as specified in (a) above will adversely affect the health of petitioner's members (particularly those residing near the plant), resulting in medical bills and the shortening of their lifespans.

(d) The value of petitioner's members property will decrease through the normal operations of the proposed plant's cooling system through the adverse weather conditions thus created in the area immediately surrounding the plant.

(e) The economic interests of those CEE members who are rate-payers of Detroit Edison or the public power cooperatives who have purchased an interest in the plant will be adversely affected due to the raise in rates that will be caused by operation (or inability to operate) of the proposed plant.

## III

### STATEMENT OF CONTENTIONS

3. Under Sec. 2.714 Petitioner is not required to frame specific contentions until fifteen (15) days prior to the holding of a special prehearing conference or the prehearing conference if no special prehearing conference is held. Although petitioner is listing certain contentions concerning the proposed plant below, it reserves its right under 2.714 to add additional contentions or revise the contentions listed below within the time limits specified in the section identified above.

Although one member of CEE may be concerned and involved with one of the following contentions more than another, all members share a common interest in the following contentions:

Health and Safety: Issues of Construction and Design

4. The following contentions and their factual bases are supported by the direct and indirect knowledge of at least one member of CEE, who is and has been personally involved in the construction of Fermi 2 since work was begun.

(a) There has been an appalling lack of physical security at the construction site since the inception of construction. Given the need for extremely close quality control in the erection of a nuclear plant, this failing could well lead to flaws in the structure, through deliberate sabotage or unintentional injury to components.

(b) Quality control has been poor throughout the period of construction, inspections being limited for the most part to superficial surveys. Workers who were employed at the Davis-Besse construction site during the lengthy shut-down at Fermi 2 were shocked at the laxity of quality control at Fermi 2 in comparison.

(c) Just prior to the halt in construction at Fermi 2, there were widespread allegations among workers that Detroit Edison had ordered a supervising engineer to destroy by burning two trailer-loads of documents, believed to be related to quality control and engineering.

(d) Detroit Edison twice replaced the team of supervisors from the first general contractor, Ralph M. Parsons Co., then terminated its contract with Parsons and hired a second firm, because Parsons' employees refused to sacrifice quality control in order to expedite the construction schedule.

(e) Specific flaws in construction can be identified, among them:

(1) Excessive water in the reactor hole which caused the concrete base to crack severely, a problem purportedly remedied by patching.

(2) Hairline cracks in structural steel surrounding the dry well.

(3) The complete absence of any "fence post detection" to monitor the level of radiation at the perimeter of the site, a fact admitted by Detroit Edison on the record at a public hearing at Cantrick High School.

(f) Further, there has been and remains very low morale among the construction workers, many of whom believe:

- (1) The plant will never be ready by 1980.
- (2) Serious problems will manifest during start-up.
- (3) Dangerous flaws may exist due to poor quality control.

5. The design of the radiation monitoring system is inefficient and incomplete to adequately monitor radiation both in normal operation of the proposed plant, as well as during those moments after a maximum hypothetical accident. Despite the fact that technology exists to install completely remote controlled and other sophisticated monitoring systems throughout the proposed plant's site and on the perimeter of the plant's site, and ground level and above, Edison's design does not incorporate adequate radiation monitoring systems.

6. Numerous components of the Fermi 2 plant will become exposed to radiation and to adverse physical conditions if it begins operating which will change the physical properties of the materials over the 40 years of expected operation. Unexpected deterioration of these components or their systems could threaten the operation and safeguards of the plant. Difficulties at Palisades, Fermi 1, and other plants already demonstrate that expected durability of parts is highly inaccurate. CEE contends that Edison has failed to provide adequate procedures for inspection and replacement of these critical components.

7. The steam generator system of the Fermi 2 plant will be subject to unexpected corrosion, making it likely that an expensive major overhaul will be necessary well before the expected forty year life of the plant is finished. The current difficulties at the Turkey Point and Surry plants demonstrate this problem.

8. Emergency plans and procedures have not been adequately developed or entirely conceived with respect to an accident which could require immediate evacuations of entire towns within a 100-mile radius of the Fermi 2 plant, including Detroit. In particular, CEE is concerned over whether there is a feasible escape route for the residents of the Stony Pointe area which is adjacent to the Fermi 2 site. The only road leading to and from the area, Pointe Aux Peaux, lies very close to the reactor site. In case of an accident the residents would have to travel towards the accident before they could move away from it.

9. With respect to the availability of sophisticated medical treatment of radiation injuries, Edison has not made adequate provisions for either facilities or personnel to treat radiation injuries or radiation-chemical injuries which would result from a maximum hypothetical accident or any other lesser accident, exclusively nuclear or in concert with an accident involving any of the other industrial sectors previously described in this petition. Edison has not adequately



considered the future availability of the services of hospital, ambulance, and public and private police protection in the numbers necessary to handle and adequately safeguard the public interest in the event of the aforementioned potential accidents.

10. Edison has not incorporated into the design of Fermi 2 solutions to many of the generic safety problems of boiling water reactors. These problems endanger CEE members and thousands of other citizens near the plant site. These problems were outlined in NUREG-0410, "NRC Program for the Resolution of Generic Issues Related to Nuclear Power Plants," and include the problems associated with turbine missiles, monitoring within the pressure vessel, and common mode failures in the reactor scram systems, as well as the questionable effectiveness of containment sprays in a loss-of-coolant-accident, the possible failure of safety systems in a loss-of-coolant-accident due to thermal shock, and the lack of adequate instrumentation to detect severe fuel failures, and many others. The recent River Bend case has indicated that these problems must be addressed. Edison has not shown adequate solutions to these generic safety problems.

11. Edison has not proven that Fermi 2 could withstand a serious flood or that it is constructed in an area which ensures that such a flood would not occur.

12. The Standards for Protection Against Radiation currently in force, 10 C.F.R. Part 20, are inadequate, illegal, and in contravention of the Atomic Energy Act. Accordingly, any radioactive emissions to be discharged in any form from the Fermi 2 plant are different than what would be permissible by virtue of valid radiation standards promulgated pursuant to the obligations of the NRC under the Atomic Energy Act.

CEE contends that several inherent deficiencies result from the inadequacies of the standards which in turn impact on the lives of CEE members.

(a) The standards do not take into account radiation doses which the public may receive from sources other than a particular licensee of the Commission; and with respect to Edison, no procedure has been followed, or proposed, to abate the illegality of the standards;

(b) The standards do not adequately take into account accumulations of emissions of radioactivity which may be present as a result of continued emissions of radioactivity with respect to a licensee and with respect to Edison, no procedure has been followed, or proposed, to abate the illegality of the standards;

(c) The standards do not adequately provide for differences in toleration of radiation in different human beings in different given locations; and with respect to Edison, no procedure has been followed, or proposed, to abate the illegality of the standards;

(d) The standards do not adequately provide for a tracing of emissions of radioactivity through all pathways by which such radioactivity may be transmitted to the population in a given area, as well as each pathway by which it may be transmitted in the eco-system in a given geographical area; and with respect to Edison, no procedure has been followed, or proposed, to abate the illegality of the standards.

13. The proposed plant is designed to emit radiation which would exceed maximum permissible concentration levels in the current radiation standards if one considers the reconcentration factor of certain radionuclides such as cesium-137, strontium-90, and iodine-131. No procedures by Edison have been undertaken to account for and abate this reconcentration phenomenon regarding many of the radionuclides to be emitted from the plant in normal operations.

14. The operation of Fermi 2 would entail the acceleration of the volume of radioactive poisons which would be released at all stages of the nuclear fuel cycle. These would unquestionably endanger the health and well-being of CEE members and citizens throughout the country.

(a) The mining, milling, enrichment, and fabrication of the uranium to be used at Fermi 2 presents very serious health hazards that have been documented in recent NRC publications and cases. In particular, evidence has indicated that the long-term effects of radon gas from mining and milling tailings may cause hundreds of thousands of deaths due to cancer and genetic effects. These results appear irreversible should Fermi 2 be allowed to go into operation.

(b) Recent evidence has indicated that routine "allowable" releases and common accidental releases of radioactive toxins will cause large numbers of cancers in citizens living in the area surrounding the plant.

(c) The current plans for temporary storage on-site of used reactor fuel at Fermi 2 provide no guarantee of protection of CEE members and the general public from overstorage which could lead to safety problems or from the possibility of internal or external sabotage.

(d) CEE contends that a method for effective storage of high level and transuranic wastes has not been demonstrated. This lack of a solution presents serious health and environmental concerns to CEE members and the general public, and does so for periods of hundreds of thousands of years.

## ECONOMIC CONSIDERATIONS

15. CEE contends that Edison's planning has given inadequate consideration to the future costs and the availability of the proposed fuel and other possible fuels.

Several specific examples follow:

(a) Adequate planning on the part of Edison would have shown that uranium would in the future become scarce and expensive (the cost is presently rising at a nearly exponential rate).

(b) Edison has failed to consider the costs of and difficulties in obtaining other fuels, such as uranium-233, thorium isotopes and plutonium isotopes at least one of which CEE contends will have to be used in the Fermi 2 plant. For example, the future of reprocessing plants in the U.S. is in jeopardy.

(c) CEE contends that Edison has not considered that the necessity of importing expensive U-238 will further create an outflow of American money to foreign lands, thereby making capital less available in the U.S. and creating financial burdens on the American public. CEE further contends that uranium importation will not move the U.S. away from energy dependence on foreign interests.

The implication of (a) and (b) above is that, in addition to unexpected costs which will appear in our rates, CEE members and other Edison customers may in the future be affected by Edison's inability to fuel their nuclear plants (i.e. replacement costs for electricity during shutdowns).

16. CEE contends that the NRC has failed to fulfill its own requirements regarding the sale of part of Fermi 2 to Northern Michigan Electric Cooperative, Inc., and Wolverine Electric Cooperative, Inc. According to the Atomic Energy Act and NRC Regulations the Co-ops must satisfy all of the requirements for receiving an operating license without regard to the position of Edison. Therefore, CEE contends that the operating license for Fermi 2 should be withheld until the NRC performs its lawful duty.

17. The Environmental Impact Statement filed by the Rural Electrification Administration (REA) is inadequate and the subject of an action in Federal District Court on that issue. Drake v. U.S.D.A., No.67-607-CA-7 (W.D. Mich.). While the mere presence of that action may not be sufficient grounds for the denial of an operating license, NRC must examine the merits of the suit to determine the likelihood that the EIS will be found inadequate. The impact of such a decision would be to make illegal the Co-ops' purchase, which would require denial of the license.

Briefly, the REA's impact statement is inadequate for these reasons:

(a) REA relied almost wholly on NRC's EIS filed at the time of issuance of the construction permit. As noted below, this statement was inadequate when filed, and REA made no attempt to improve nor update the substance.

(b) REA violated its own regulation, as set forth in Bulletin 20-22, Part VIII, requiring notice of a draft EIS. No draft was ever prepared, in violation of NEPA as interpreted by federal courts.

(c) Absolutely no alternate, and superior, sources of energy for the Co-ops' service areas were considered by REA, in defiance of the express requirements of NEPA.

(d) REA sought no comment from state or local units of government in spite of the express command of NEPA.

(e) REA failed to consider the devastating impact of the outflow of local dollars, the loss of potential inflow of construction investment, and the loss of substantial taxable construction in the northern areas.

#### Environmental Concerns

18. NRC has failed to address the availability of alternatives to the Fermi 2 plant, in the Environmental Impact Statement filed at the time of issuance of a construction permit and at all times subsequent. In so doing, NRC has violated the requirements of the National Environmental Policy Act.

19. Because of the peculiar atmospheric conditions, which often prevail throughout the year in the Monroe area, adequate consideration pursuant to NEPA has not been given to the evaporation and fogging problems and other atmospheric effects which will occur as a result of the daily operation of the proposed plant's cooling towers. Nor has adequate consideration been given to the impact of this increased fogging on agricultural uses, boating safety, and the recreational availability of the lake. These considerations are especially important, inasmuch as they affect Michigan's second largest industry, tourism.

For the foregoing reasons, Petitioner respectfully requests that a hearing be conducted on the application for an operating license, and that CEE be granted standing as an intervenor in the proceeding.

*Robert Maynard*

Robert Maynard  
Member and Authorized  
Representative of CEE



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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DETROIT EDISON )  
Fermi Plant, Unit 2 )

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CERTIFICATE OF SERVICE

I hereby certify that I have served copies of the foregoing document entitled "Amended Petition to Intervene" by deposit in the United States mail, first class this 4th day of December, 1978, on the following:

Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
Attn: Docketing and Service Section

Executive Legal Director  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Eugene B. Thomas, Jr., Esq.  
LeBoeuf, Lamb, Leiby and MacRae  
1757 N Street, N.W.  
Washington, D.C. 20036

Peter A. Marquardt, Esq.  
The Detroit Edison Company  
2000 Second Avenue  
Detroit, Michigan 48226



*Robert Maynard*

Robert Maynard

On this 4th day of December, 1978, before me personally appeared Robert Maynard, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

My commission expires:

December 4, 1978  
Date

*Kevin L. Bitts*  
Notary Public

To Whom It may Concern,

As an organizer, founder and acting director of Citizens For Employment and Energy, (CEE), I authorized Mr. David Heller to submit CEE's petition to intervene in the Fermi II operation license hearings. He did so as a member of CEE acting for CEE with its authority.

Likewise, I authorize Mr. Robert Maynard to submit CEE's petition amendments for said hearings. Submission is done in all cases with the full ~~and~~ authority of CEE and its individual members.

Robert D. Asperger  
12 Dennis Ct  
Director, CEE.

Nov 27, 1978

Antonia M. Ziminski



AFFIDAVIT OF INTEREST

I, Jeffrey A. Alson, hereby depose and say:

1. I reside at 772 Green, Bldg. 4, Ypsilanti, Michigan, 48197, within 35 miles of the proposed Fermi 2 plant.

2. I am a member of Citizens for Employment and Energy and desire that CEE represent my interests through intervention in any NRC proceeding relating to Fermi 2.

3. I adopt and support the statements of interests and contentions delineated in CEE's Amended Petition to Intervene.

Date: Dec. 4, 1978

*Jeffrey A. Alson*  
Jeffrey A. Alson

On this 4th day of December, 1978, before me personally appeared Jeffrey A. Alson, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

My Commission expires:

9/6/1979  
Date

C. Arthur Hill  
Notary Public

