

10/9/78



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
DETROIT EDISON COMPANY )  
Fermi 2 Plant )

Docket No. 50-341

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. Detroit Edison has demonstrated that it is not technically qualified to supervise or control the construction of a major

generating facility, particularly one with the potentially catastrophic consequences of a poorly built nuclear plant. Fermi 1 is widely recognized as the paradigm of nuclear blunders, and Edison's Monroe Power Plant, the world's largest coal-fired plant, is now only five years into operation and already in need of major reconstruction on four of the plant's principal systems. The long series of errors was not beyond Edison's control.

6. The design of the radiation monitoring system is insufficient 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.

7. The components and engineering of safeguards of the Fermi 2 plant will be exposed to radiation that will lead to deterioration of these components, and there is no assurance that the integrity of these components or their systems will be maintained over the 40-year expected life of the proposed plants. 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.

8. The steam generator system of the Fermi 2 plant will be subject to 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.

9. 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. This area includes such populous areas as Detroit, Port Huron, Sarnia (Can.), Mt. Clemens, Rochester, Troy, Roseville, Pontiac, Wallaceburg (Can.), Warren, St. Clair Shores, Drayton Plains, Clawson, Madison Heights, Royal Oak, Centerline, East Detroit, Birmingham, Grosse Pointe Woods, Beverly Hills, Grosse Pointe Farms, Berkeley, Ferndale, Hazel Park, Flint, Oak Park and Grosse Pointe Park, Monroe, Dearborn, Melvindale, Allen Park, Ypsilanti; Toledo, Ohio; Flat Rock, in addition to many smaller centers of population and also the counties surrounding them.

10. 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.

11. 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.

Some of the inherent deficiencies which result in the radiation standards' being illegal are:

(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.

12. 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 plan in normal operations.

#### Financial Qualifications of Applicants

13. Detroit Edison lacks the financial ability to complete and maintain Fermi 2 as evidenced by the following:

(a) Construction on Fermi 2 was shut down for two years for inadequate funding;

(b) Construction was recommenced only by virtue of the sale of 20% interest in the Fermi 2 plant;

(c) Detroit Edison is currently negotiating for a one hundred to two hundred million dollar loan from the Teamsters Central States Pension Fund (see The Monroe Evening News, Saturday, October 7, 1978, page 3-b).

14. Edison has given inadequate consideration to the lack of availability of the proposed fuel, uranium-235, -233, thorium isotopes, and plutonium isotopes, which it may have to use in these plants and which CEE contends will have to be used in these plants.

15. CEE contends that Edison did not sufficiently consider future availability and pricing of uranium supplies. Adequate planning should have shown Edison that U-238 would in the future become scarce and expensive. The cost of U-238 is currently escalating in near exponential fashion. Already, cost of U-238 to be delivered in the early 1980's is in the neighborhood of \$363/lb., which is well up from the \$6-88/lb. in 1973. Furthermore, it is quite likely since uranium is a relatively small part of the total cost of a nuclear plant, that a uranium cartel would have tremendous latitude in raising prices to the nuclear industry, which would have no alternative but to pay the price. Such problems with a cartel are magnified by the fact that domestic U-238 supplies are fast being outstripped by demand. Import of U-238 is anticipated to begin as early as 1979, even if only nuclear plants currently under construction are completed.

16. 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.

17. CEE contends that the costs of building and operating fuel reprocessing plants have not been adequately considered by Edison. Such plants, whether built by the power industry or by government, would represent a financial burden on ratepayers and/or taxpayers, and thereby on members of CEE; even though such costs are hidden, they are nevertheless real.

18. Edison and NRC and Staff, in their consideration of economic advantages of erecting the proposed plant, have not adequately considered that since there are no major fuel reprocessing plants in operation and that since a successful technical and economic future for such plants is in jeopardy, Edison may not be able to purchase fuel when it needs it. Inability to purchase fuel would put an added burden on the taxpayers and ratepayers. It would, furthermore, likely result in an inability of Edison to meet its financial obligation. Furthermore, there is evidence that the several tried reprocessing technologies are unworkable or are uneconomical. Although Edison and the NRC and Staff claim there will be a plutonium resale value from the spent fuel at the proposed plant, if reprocessing plants are not economically available there will be no way of recovering the plutonium.

19. The legality of the continued participation of Northern Michigan Electric Cooperative Inc. and Wolverine Electric Cooperative, Inc. (Co-ops) is in serious doubt for the reasons listed below in contentions 20-21. The impropriety of the Co-ops' participation is crucial for one or both of the following reasons:

(a) Since Edison alone is financially unable to complete Fermi 2 in accord with NRC Regulation and general principles of safety and prudent construction practices, the withdrawal of the Co-ops' support must preclude the granting of an operating license for Fermi 2. (NRC Regulation 10 C.F.R. Sec. 50.57 (4).)

(b) Without admitting the legality of the Co-ops' ownership, if such ownership is legal, then under 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.

20. The Co-ops are financially unqualified to participate in construction and operation of Fermi 2 as evidenced by:

(a) The necessity of significant rate increases to compensate for the absence of demand.

(b) The lack of financial resources to purchase outside power in the almost certain event of shutdown of Fermi 2 for repair and maintenance.

(c) The purchase agreement between Edison and the Co-ops inadequately protects the Co-ops in the event of shutdown.

21. 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. 677-607-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, so noted above, 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

22. 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.

23. NRC has not complied with the National Environmental Protection Act by not adequately considering the alternate and better uses to which the proposed construction site at Fermi2 could be used: for example, but not limited to, a coal gasification and/or coal liquifaction plant, fossil fuel steam, electrical central power generation station, or a combined cycle gas turbine plant.

24. NRC has inadequately considered using fossil fuels in combination with municipal wastes providing the thermal energy for driving a steam turbine generator as an alternate to a nuclear power generating facility. It has inadequately considered using only municipal wastes as the fuel for a plant supplying steam for electrical and thermal generation. It has inadequately considered the advantages and disadvantages of fermenting municipal wastes to generate gas, which could be used in combined cycle fossil fuel plants.



25.NRC has inadequately considered the impact on the available jobs in the area of a coal liquefaction plant, which could supply process feed stocks to both petroleum and chemical plants which are located in the area.

26.NRC has not thoroughly analyzed the economics of coal-fired plants versus nuclear fuel plants. There is presented in the PSAR and Regulatory Reports inadequate analysis of the price of coal on-the-spot prices or long-term prices, for the proposed plant.

27.NRC has not considered the beneficial effects of a coal liquefaction plant at the Fermi 2 site; a plant which could generate a feed stock for existing and future petroleum-based chemical and other petroleum-based industries.

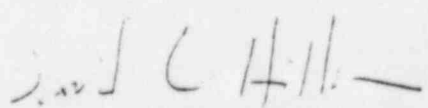
28.NRC has not adequately considered such alternatives to guiliding new power plants as letting industry provide its own energy source.and sell its excess power to Edison.

29.DE's Environmental Report, even if it were to be considered a proper discharge of the Commission's obligation under NEPA, is further deficient in coverage of the following point: the removal of radioactive wastes; thermal effects; water supply; expanding the operations to generate electricity or steam in the proposed plant or attracting in close proximity to the proposed plant additional users of steam or other heat available from Fermi 2 via any other heat transferring mode, which is now available or which may be available during the life of the Fermi 2 plant.

30.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.

WHEREFORE, Petitioner requests that a hearing be held on the application for an operating license and that it be permitted to intervene in the proceedings.

Respectfully submitted on behalf of the Petitioner, Citizens for Employment and Energy,

  
David L. Miller  
Member, CEE

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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DETROIT EDISON )  
Fermi Plant, Unit 2 )

Docket No. 50-341

CERTIFICATE OF SERVICE

I hereby certify that I have served copies of the foregoing document entitled "Petition to Intervene" by deposit in the United States mail, first class this 9th day of October, 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



*David Hiller*

David Hiller

On this 9th day of October, 1978, before me personally appeared David Hiller, 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:

October 14, 1978  
Date

William L. Bitts  
Notary Public