



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
OTTAWA, CANADA
K1A 0A6

February 4th, 1988

The Director of Nuclear Reactor Regulations
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Sir:

re: Detroit Edison's Fermi II nuclear plant,
Monroe, Michigan

We, the undersigned, are Members of Parliament, the elected representatives - at the federal level - of the people of Windsor and Essex County, Ontario, Canada. This area, while in Canada, is only a few kilometres away from the Fermi II nuclear plant at Monroe, Michigan. This plant is operated by Detroit Edison and is considered by many Canadians to be a serious, potential danger to their health and safety.

We represent all three political Parties in Canada and have joined in this non-partisan appeal for protection for Canadians who would be most seriously affected, given prevailing weather patterns, in any accident at Fermi II.

Fermi II was granted permission "to exceed 75 percent power" - that is, to go into full operation - by Mr. A. Bert Davis, Regional Administrator, Region III of the United States Nuclear Regulatory Commission, in his letter of January 15th, 1988, (Docket No. 50-341), to Mr. Ralph Sylvia of the Detroit Edison Company.

We are therefore writing this letter as a Petition, pursuant to Title 10 of the Code of Federal Regulations, Section 2.206, appealing this decision by the U.S. Nuclear Regulatory Commission.

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We are, through this appeal, asking a) that the above decision be overturned, b) that the licence to operate Fermi II be revoked and c) that Detroit Edison be required to prove, to the satisfaction of both your Commission and the relevant Canadian authorities, that it is absolutely safe to operate this plant at any level and that such operation does not present any danger to the health and safety of the people of Windsor and Essex Country.

WE SUBMIT THIS PETITION ON THE FOLLOWING GROUNDS:

Both Mr. Davis's letter to Mr. Sylvia, referred to above, and the "Assessment of Detroit Edison Company: Readiness to Proceed Beyond 75% Power", enclosed with that letter, show that Mr. Davis was not justified in granting the authority to Detroit Edison to exceed 75% power. In fact, Mr. Davis's own words would lead to the reaching of a very different conclusion.

(A) Letter from Mr. A. Bert Davis to Mr. B. Ralph Sylvia, dated January 15th, 1988.

In his letter, Mr. Davis says, in part:

"I suggest that you and your staff carefully review and discuss this assessment as you move forward with the final phases of the startup test program. As you recognize, the test program at this level contains certain major evolutions and challenges. Attention to detail, good communications, adherence to procedures and the operational performance standards, as well as a slow and cautious approach with strong management oversight and teamwork are requisites to continued successful performance."

Quite clearly, Mr. Davis is saying that the necessary attention to detail, good communications, adherence to procedures and operational performance standards, strong management oversight and team work have not yet been found to be present in the operation by Detroit Edison of Fermi II. This is demonstrated by the words, also found in Mr. Davis's letter:

"While your almost three months of continuous operation has shown a positive trend toward improved performance, and your overall operation

is considered acceptable, significant work and effort on your part is still required to become a good performer. Your progress in achieving your stated goals of excellence will be monitored closely. ..."

Surely, if significant work and effort is still required on the part of Detroit Edison to enable Fermi II to be "a good performer", it was wrong for Mr. Davis to grant the utility the authority to operate Fermi II at full power. Nothing less than the absolute certainty that Detroit Edison is a good performer in its operation of Fermi II is necessary before the plant should be permitted to operate at 100% - or, indeed, at any level.

(B) Regulatory Assessment of Detroit Edison Company.

The regulatory Assessment enclosed with Mr. Davis's letter would seem to cover the most recent operation of the plant at the 75% level and this assessment demonstrates that, up to the very last minute of completion of it, there continued to be concerns regarding "plant issues, equipment problems, the material condition of the plant, the status of CRIS dots and annunciators, setpoint methodology" ... as well as "the reactor scram of December 31, 1987." According to the report, these were discussed with the utility on January 5-6th 1988.

Examples of the problems mentioned above, as taken from the exact words of the Assessment and set out hereafter in quotation marks, include:

"2. Startup Testing Program:

. . . TC-3 testing of the feedwater system, however, did not completely resolve problems associated with the turbine speed control. Troubleshooting was then initiated on the hydraulic control system. The apparent instabilities were associated with internal component leakage and bypass flow which resulted in large drops in control oil pressure. As a result, testing was limited to smaller speed changes of about 4 percent instead of the prescribed test objectives of 10 percent. This was treated as a test exception. Noise spikes were also encountered during transfers between single element and three element control. ..."

"3. Plant Status

After receiving authorization to operate the facility up to 75% power, on December 5, 1987, the licensee proceeded to 75% power. On December 10, 1987, the licensee encountered unexpected vibration of the reheater seal tank emergency drain line and reduced power to evaluate this phenomenon. The reason for the vibration was excessive use of the line due to moisture separator reheater level oscillations causing seal tank swells which automatically open the emergency drain valve.

The licensee lowered the normal level in the seal tank so the swells did not cause emergency drain valve opening. The unit was returned to 75% power with acceptable results. The Restart Team considers identification of such problems to be typical of the types of problems a startup test program should identify and resolve. .."

The assessment goes on to say:

"Following the plant scram of December 31, 1987, the licensee placed the unit in cold shutdown and commenced necessary outage-related maintenance activities. The major activities included:

- Repair of a containment isolation purge valve.
- Replacement of a HPCI injection valve motor assembly.
- Troubleshooting of the feedwater control system to help reduce swings in the #1 system.
- Identification and repair of a gross flange leakage in the feedwater control lube oil system.
- Replacement of the reactor recirculation pump scoop tube brake power source which will keep the brake from sticking thus reducing control instabilities.
- Repair of identified post-scram equipment problems such as the reactor vessel head vents and the Division II post-accident recorder.
- Repair of select annunciators and reduction of CRIS dots. .."

"4. System and Component Vibration

During Test Condition 3 data was obtained indicating a concern for both main steam line and RHR Head Spray piping vibration. ..."

"6. Site Specific Loop Accuracy Calculations

An NRC Region III inspection of the Fermi 2 Environmental Qualification program for electrical equipment was conducted in September 1987. A concern was identified at this time that Detroit Edison did not have site specific loop accuracy calculations to justify the performance of instruments and their electrical interfaces, during harsh accident conditions. ..."

"7. Safety Parameter Display System Operability

During Test Condition 2, a post-licensing implementation audit of the SPDS was performed by the NRC and its consultant based on the licensee's December 1985 declaration that the SPDS was installed in the plant and operational. The audit determined that the SPDS was not fully operational in that it did not provide reliable information on the status of the critical plant parameters for abnormal conditions. The audit report was transmitted to the licensee by NRC letter dated July 29, 1987. ...

By letter (NRC-87-0262) dated December 30, 1987, the licensee responded to the NRC concerns regarding SPDS, as documented in the audit report transmitted by NRC letter dated July 29, 1987, as well as the three operability issues noted above for interim operation consideration. From a preliminary review of the licensee's response to the SPDS audit report, the licensee has proposed a SPDS Program, to be completed by December 1988, which should successfully upgrade the SPDS. ..."

This indicates that the plant is being allowed to operate at the 100% level, without first having the Safety Parameter Display System in full operation.

"8. Event follow up"

Since December 5th, 1987, a number of events - that is to say, problems - with the safe operation of Fermi II have been reported. These are listed in the assessment which characterizes them as follows:

"The Restart Team is concerned with the higher than normal number of events which occurred since the last assessment. The majority of these events were attributable to personnel error and were clearly avoidable. The other events were attributable to equipment and procedural problems. ...

In conclusion, the Restart Team believes that these events are not a restraint to operation up to 100% power; however, additional management attention is needed to resolve and minimize the personnel errors."

"9. Status of Corrective and Preventive Maintenance

... During the last regulatory assessment for 75 percent power considerations, the Restart Team expressed the view that continual attention to annunciators, CRIS dots, meeting preventive maintenance commitments and attention to the corrective maintenance backlog was required for the success of the power ascension program. This comment remains valid with respect to current and subsequent commercial operations. The team noted that while the corrective maintenance backlog had been generally trending downward until late December, ... a combination of recovery from two reactor scrams and the brief outages has resulted in an increase in the backlog of about 10 percent. The outstanding corrective maintenance backlog currently contains 905 items for work to be done. An additional 626 items are completed and awaiting final paperwork closure as of the date of this assessment. ...

The licensee has encountered difficulty in providing Region III with meaningful and accurate data upon which an evaluation could be based. Furthermore, significant licensee and NRC attention was needed to obtain this data. The team believes that a simple accounting system can and should be used in subsequent monthly updates. .."

"10. Current Operator Performance

" ... The strengths and weaknesses identified during the Control Room Evolution Evaluation Program in the October/November timeframe were discussed with four of the six shift crews by the respective shift supervisors prior to December 21, 1987. The other two crews completed their strengths and weaknesses review on January 11, 1988, and prior to completion of this assessment. The licensee had committed to completing the review by December 31, 1987. This matter was identified by the licensee in their review to assure that the commitment had been met and was adequately deal with once discovered. Nonetheless, the Restart Team was disappointed in that this matter had not been adequately dispositioned until the team met to discuss the matter on site."

"12. Pending Enforcement Issues"

The Regional Office of the Nuclear Regulatory Commission has allowed Fermi II to go to 100% operation, even though potential enforcement action remains pending for a number of issues, including:

"Prior deficiencies in the operator licensing requalification program.

Operation of the plant in unanalyzed conditions in that the feedwater heaters were removed from service while at 50 percent reactor power. ...

Design error in which loss of DC control power resulted in the loss of power supply to the LPCI swing bus and thus to the LPCI Loop Selection Valves. An Enforcement Conference was held on December 22, 1987.

Several surveillance program deficiencies which resulted in the violation of GDC 56. .."

"13. Emergency Preparedness"

Region III of the United States Nuclear Regulatory Commission has allowed Fermi II to go to 100% power, even though it is clear that offsite planning for all of Windsor and Essex County for an emergency arising from an accident at Fermi II has not been completed.

There is no full emergency response plan - specifically related to an accident at Fermi II - in place for all of the Windsor and Essex County area. Instead, the report makes clear there is only such a plan for the Town of Amherstburg and the Townships of Anderdon and Malden, forwarded by Essex County Council to the Provincial Solicitor General on January 15th, 1987, "for review".

The assessment says:

"The Provincial Plan covering nuclear emergency preparedness is in effect, although still in draft."

"14. Technical Specification Improvement Program"

N.R.C. has allowed Fermi II to go to full operation, even though there are:

"... concerns with the licensee's implementation of a program to improve the Technical Specifications and with the licensee procedures which implement the Technical Specification requirements."

"17. Conclusions"

Again, these conclusions do not support the decision to allow Fermi II to go to full power.

"The test results review included the results verifications and detailed results evaluations. This review indicated that two systems had test difficulties, the High Pressure Coolant Injection (HPCI) and the Feedwater systems. Although supplemental testing of HPCI demonstrated that all testing problems had been resolved during Test Condition 3, the feedwater testing did not."

"18. Restart Director's Perspective"

This Perspective does not support the decision to allow Fermi II to go to full power.

"... Unfortunately, on December 31, 1987, the plant tripped because of a personnel error which was fully avoidable. During the history of this plant, mistakes and equipment failures have occurred and delayed full power operation. With respect to equipment problems, this has resulted in an inordinately high forced outage rate and the reactor scram of January 10, 1988.

I would not be surprised by more equipment problems, however. This is a complex plant and in some aspects, the unique mix of various architect engineers and older design, as well as the installation of components and systems using a variety of vendors has resulted in unique system design configurations. These problems are not insurmountable but in some cases design improvements and upgrades may be desirable during the 40 year lifetime. ...

To be a top performer this utility must aggressively eliminate organizational inertia, demand a nuclear operating philosophy from the entire staff and continue to hold poor performance accountable on the part of departments and/or personnel. Additionally, Fermi must aggressively seek out and solve problems through their own initiative and without undue reliance on the NRC.

While there are many areas which require improvement at Fermi including preventive and corrective maintenance, engineering, licensing, SPDS, technical specification improvements, better control of surveillance and feedback of learned experiences including the operator evolution evaluation program, the plant is becoming a better performer. ...

While I cannot predict future performance, I am cautiously optimistic that the improved performance will continue."

(C) Other Concerns

In addition to these points of contradiction in the letter from Mr. Davis to Mr. Sylvia of January 15th, 1988, and the enclosed assessment, there remain various fundamental problems with the reactor, its design and its operational plans, which deeply concern us and the many thousands of Canadians we represent (thousands of whom have signed a petition to this effect).

Fermi II is the largest Mark I General Electric reactor in the United States; this in an old technology, which has a pressure-suppression design which has inherent risks; the NRC's most recent research predicts that this type of containment will fail in 90% of the severe accident scenarios analyzed.

Adding to this problem in the case of Fermi II is the fact that this reactor has been permitted an exemption from the general rule requiring the inerting of the primary containment system with nitrogen. This severely adds to the dangers of the reactor to the surrounding area, if an accident were to occur.

There have also been continual discoveries of inadequate infrastructure included in the construction of the reactor, which has resulted in continuing and consistent accidents and problems at the plant - and the highest level of fines experienced by any reactor in the United States for breaches of regulations.

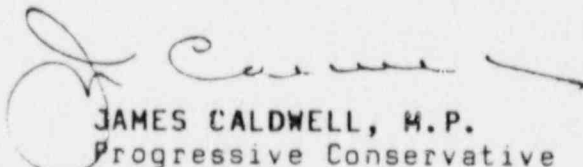
One of these breaches of regulation was particularly serious and, according to NRC documents in our possession, involved a failure by Detroit Edison to provide information they possessed regarding reaching criticality in 1985, during the period immediately before a licence to operate was granted to the reactor. In view of this charge of holding back information, the licence to Fermi II should now be revoked by the NRC.

Finally, we must make reference to the fact that a lawsuit is being brought against Detroit Edison and Fermi II with reference to their use of the SAFETEM concept on the basis that this, too, holds back information from the NRC.

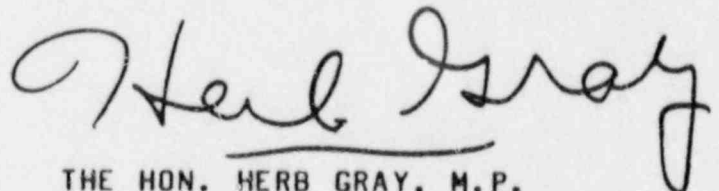
On the basis of the foregoing detailed concerns, and representing over 300,000 people in Windsor and Essex County, we ask that this petition receive the most serious and urgent consideration.

We would be pleased to discuss these points further with members of the United States Nuclear Regulatory Commission and with other United States officials.

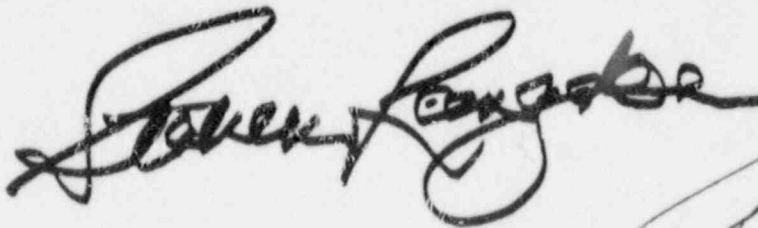
Yours sincerely,




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