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UNITED STATES OF AMERICA  
ATOMIC ENERGY COMMISSION

DOCKET NO. 50-346  
FILED & RECORDED

2/2/73

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

IN THE MATTER OF:  
EDISON CO. and  
CLEVELAND ELECTRIC ILLUMINATING  
(Davis-Besse Nuclear Power St.)

Docket No. 50-346

AMENDED PETITION TO INTERVENE

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The Coalition for Safe Nuclear Power, in conformity with the Board Order of March 30, 1973, but not intending to waive its objection to being again required to secure intervenor status in these proceedings, hereby submits the following statement of interest in the proceedings and its supplemental list of contentions:

1. The Coalition for Safe Nuclear Power is composed of numerous conservation and environmentally oriented groups both incorporated and unincorporated, and concerned individuals. Its membership organizations and their interest in the termination of Construction Permit No. CPPR-80 are fully documented in the ASLB hearing record of December 8-10, 1970, and the original intervention petition filed in those initial proceedings.

2. The Coalition, by reason of its member organizations, has a special conservational interest in the protection of the natural resources and marsh, ecosystem of Western Lake Erie. They will suffer injury in fact to this interest from the operation of the Davis-Besse Nuclear Power Station by reason of the plant's anticipated radiological and non-radiological air and water borne emissions and by reason of possible unanticipated releases of radiological emissions in excess of 10 CFR 20 limitations.

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3. The Coalition further asserts its interest as a private attorney general in seeking adequate and complete implementation of the requirements of the National Environmental Policy Act of 1969, as that interest relates to the final Environmental Impact Statement issued by the Directorate of Licensing and made the subject matter of these proceedings. In support of this public interest, the Coalition states that the Final Environmental Statement constitutes an arbitrary and capricious refusal to comply with consideration of alternatives as required by Section 102(2)(c) iii of the National Environmental Policy Act of 1969, in that the "staff" has failed and refused to consider the alternative of conservation of energy within the applicant's service areas so as to obviate the need for the 872 MW additional capacity of the Davis-Besse plant. In other words, all alternatives to construction of this plant have not been considered, including but not limited to conservation of energy and underground siting.

4. The Coalition further asserts as a private attorney general, that the omission of the Environmental Consequences of "Class Nine" accidents is a breach of the Commission's NEPA responsibilities of substantive project evaluation. The Environmental consequences of a melt down of the fuel core, total failure of the emergency core coolant system, breach of the containment vessel and emission of over 75% of gaseous radioactive wastes should be documented and projected in order to comply with the NEPA full disclosure procedural requirements. Petitioner contends that the Staff's Environmental Statement is insufficient because it fails to analyze the environmental impact of accidents involving a breach of containment and deposition of fission products in the range from  $2 \times 10^7$  Ci to  $1 \times 10^9$  Ci. Presumably the Staff is taking guidance from the September 1, 1971 Annex to Appendix D which says of such accidents:

"Their consequences could be severe. However, the probability of their occurrence is so small that their environmental risk is extremely low. Defense in depth (multiple physical barriers), quality assurance for design, manufacture, and operation, continued surveillance and testing, and conservative design are all applied to provide and maintain the required high degree of assurance that potential accidents in this class are, and will remain, sufficiently remote in probability that the environmental risk is extremely low. For these reasons, it is not necessary to discuss such events in applicants' Environmental Reports."

Petitioner contends that this Annex has not been adopted as a Commission regulation and therefore has no force. Petitioner further contends that the language of it clearly applies only to applicant's Environmental Reports, and does not absolve the Staff from fulfilling its duties under the National Environmental Policy Act. Petitioner furthermore challenges the truth of the quotation set forth above. The defense in depth concept has never been demonstrated to have any basis in fact, and the assertions contained within the quotation concerning the low probability of major accidents are purely speculative and totally lacking in any evidentiary basis. Petitioner contends that the Commission has admitted its lack of knowledge by commissioning Professor Norman Rasmussen of MIT to make a probability assessment of major reactor accidents. Petitioner notes that in its August 4, 1972 letter to the Joint Committee on Atomic Energy, the Commission said:

"The present state of knowledge probably will not permit a complete analysis of low-probability accidents in nuclear plants with the precision that would be desirable."

"It may turn out after further research that it is impossible to make such assessments with sufficient precision to be useful. In this event a longer term effort on the probabilities of accident-causing events would be required."

Petitioner contends that the probability of a Class 9 accident is in the range of  $1 \times 10^{-2}$  per reactor per year to  $1 \times 10^{-3}$  per reactor per year. Therefore the Staff should include environmental impact analyses of this class of accidents in its Environmental Statement, and the failure to

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The Coalition asserts as a private attorney general that there has been no consideration of an accident, which is entirely possible, which could contaminate Lake Erie as a public water supply. In Nuclear Reactor Safety: An Evaluation of New Evidence, July, 1971, the Union of Concerned Scientists evaluated the consequences of a loss of coolant accident for a 650 Mw reactor, which is considerably smaller than Davis-Besse. They state:

".... it is not at all impossible to breach the containment vessels."

"A release that involves primarily highly volatile or gaseous materials is more likely than one that involves dispersal of substantial solid material as a smoke or dust, although the latter may certainly occur. The volatile and gaseous radio-active materials are the halogens and noble gases and include the Xenons, Kryptons, Bromines, Iodines and Strontiums and comprise some 20% of the fission product inventory."

"Some idea of the hazardous nature of the materials involved comes from recognizing that the Strontium-90 inventory in the reactor we are considering is sufficient to contaminate more than 1000 cubic miles of water in excess of permitted AEC tolerance levels."

In testifying at the State of Ohio hearing on the Davis-Besse Plant, held in July, 1971, Dr. Daniel Ford of the Union of Concerned Scientists (page 176) stated:

"The deposition of the materials from fallout in Lake Erie, the release of the Strontium 90 when the massive fuel would be entombed below earth, it would surely be continuously releasing for many tens of years a large amount of activity into Lake Erie. As I indicated, the calculation that we had made here as to how great a volume of water the Strontium in a reactor would contaminate, it would contaminate over the Atomic Energy Commission's maximum control recommendations a thousand cubic miles of water, which I believe is something like twenty-five percent more than the volume of Lake Erie, so it is an evidence of a consequence of the failure of the emergency cooling system. It is core related in a very clear way with the determination that should be called upon to make on the impact of this plant on water quality."

Therefore, the Staff should have included environmental impact analyses of this accident possibility and its environmental effect on Lake Erie, and the failure to do so is a violation of NEPA.

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6. The Coalition further asserts as a private attorney general that the AEC Environmental Report has not properly evaluated all possible storm damage and the environmental consequences thereof, such as having the cooling tower lost due to storms, flooding of the area, or damage to buildings. The high lake levels and severe lake storms make these events distinctly possible. Some of the recent storms in the area indicate that there would be difficulty in reaching the site of the reactor even if the reactor itself should not be flooded. Therefore, the Staff should have included environmental impact analyses of possible storm damage, and failure to do so is a violation of NEPA.

7. The Coalition further asserts as a private attorney general that there has been no evaluation of the effect of using Plutonium as a fuel in the Davis-Besse Reactor instead of Uranium. It is evident from an article in the Wall Street Journal, March 2, 1973, page 4, "Nuclear Plant to Use Plutonium Fuel Made in its Own Reactor", that the nuclear industry is planning to substitute plutonium for uranium in order to save fuel costs. The Big Rock Point plant near Charlevoix, Michigan, will be the first plant to be so loaded, as stated, large scale production of plutonium fuel rods will require special plants, expected to go into commercial operation in 1977. Therefore, the Staff should include environmental impact analyses of the alternate use of plutonium and the environmental consequences thereof, and the failure to do so is a violation of NEPA.

8. The Coalition further asserts as a private attorney general, that the proposed Environmental Monitoring System violates the National Environmental Policy Act of 1969, in that the "staff" recommends continuation of the construction permit (major federal action) without the requisite prior knowledge needed to perform the substantive balancing required by the Act.

9. The Coalition further asserts, as a private attorney general, that sections 5.9.1 through 5.9.5 of the Final Statement fail to evaluate the environmental consequences of a transportation accident causing the release of radiation from spent fuel elements. A conclusion that such accidents will not occur constitutes an arbitrary and capricious refusal to examine possible consequences of the proposed major federal action under the NEPA.

WHEREFORE, the Coalition for Safe Nuclear Power prays that it be granted intervention status and be permitted to present evidence upon its allegations and otherwise participate as a party in these proceedings.

*Evelyn Stebbins*  
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Evelyn Stebbins, Chairman  
Coalition for Safe Nuclear Power

I, Evelyn Stebbins, being first duly deposed and sworn, depose and say that I have read the above and it is true to the best of my knowledge.

*Evelyn Stebbins*  
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Evelyn Stebbins

SWORN TO BEFORE ME and subscribed in my presence this 16<sup>th</sup> day of April, 1973.

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*Helene D. Mc Cue*  
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NOTARY PUBLIC

HELENE D. M. CUE  
Notary Public for Cayahoga County  
My Commission Expires Sept. 24, 1973