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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
DUKE POWER COMPANY	)	Docket Nos. STN 50-488
	)	50-489
	)	50-490
(Perkins Nuclear Station Units 1, 2 and 3)	)	

BRIEF IN SUPPORT OF EXCEPTIONS AND NOTICE OF APPEAL FROM PARTIAL INITIAL DECISION

I. NATURE OF THE CASE

This is an appeal by the intervenors from a partial initial decision by the Licensing Board which concludes that the environmental impact of the releases of Radon-222 associated with the uranium fuel cycle are insignificant in striking the cost benefit balance for the Perkins Nuclear Power Station. This initial partial decision and the proceedings which were held pursuant to an order of the Nuclear Regulatory Commission were prompted by the recent discovery that Table S-3 which had previously been used to determine that the effects of Radon-222 were not significant, had been found to be in error, and therefore could not be the basis for an analysis of the environmental impact of Radon-222. The Licensing Board, moving with great haste in this matter, scheduled hearings in May of 1978 and allowed the intervenors to take the deposition of its expert witness a few weeks thereafter in June of 1978. The intervenors moved for discovery and for additional time in order to conduct the hearing in a way to develop the best possible record. Intervenors also requested additional time in order that its expert witness might testify before the Board and also have time to adequately prepare

his testimony. All of these motions and requests were denied and intervenor was rushed into a hearing for two days in May without discovery and without sufficient time to prepare for all of the detailed and complex questions which arose at the hearing. Subsequently, the hearing record in the Perkins matter has been suggested as the lead case on the Radon matter, which indicates how important these hearings were and also how unfortunate and improper was the great haste in conducting hearings in this matter in May of 1978. Intervenors' witness, Dr. Kepford, was able to help the intervenors, but the intervenors did not have sufficient time for Dr. Kepford to prepare his testimony prior to his deposition in June of 1978. Also, intervenors did not have sufficient time to prepare detailed findings prior to the decision of the Licensing Board which was filed on July 14, 1978.

The initial partial decision and the orders pursuant to that decision, which limited intervenors evidence, restricts intervenors, evidence, argues rather than makes findings of fact, and, finally, arbitrarily limits the scope of the consideration of the full environmental impact of Radon-222 by assuming a limit to future generations which cannot be found in the act or any cases under the act.

Intervenors filed Notice of Appeal and exceptions.

II. ISSUES PRESENTED AND ARGUMENT

1. DID FAILURE OF THE LICENSING BOARD TO ALLOW INTERVENORS TIME FOR DISCOVERY AND ADDITIONAL TIME FOR PREPARATION OF HEARINGS AND TO PRESENT EVIDENCE AND FAILURE TO ALLOW INTERVENORS' WITNESS TO PRESENT HIS EVIDENCE BEFORE THE FULL BOARD WHEN THE RECORD FOR THIS HEARING WOULD BECOME THE LEAD CASE ON THE ENTIRE QUESTION CONSTITUTE AN ABUSE OF DISCRETION AND DENIAL OF DUE PROCESS TO INTERVENORS?

(EXCEPTIONS NOS. 1, 2, 6, and 10)

The intervenors did not raise the question presented by the Radon hearings. Therefore the intervenors were not in a position to be well grounded in all of the factual questions and intricacies which have been unfolding for several years in the area of environmental effects from the entire uranium fuel cycle and the dangers of low level radiation. Surely, it requires more than a few weeks for counsel to find out information or to locate witnesses, which does not even take into account the necessary time for in depth preparation and overall consideration of how issues should be presented and developed.

We are dealing here with the difference between going through the motions and a real day in Court. Intervenors were not refused admittance to the hearings in May of 1978. In fact, they were allowed to participate in a formal manner. Reasonable discretion and the due process clause requires, however, that a party whose life, liberty, or property is effected by governmental action must have not only adequate notice, but an adequate opportunity to prepare for an adequate hearing. Most of the cases in this area of the law grow out of the long struggle for a full and fair trial by a defendant whose life, liberty and property are placed in jeopardy by the criminal processes of the State or Federal government.

The cases are instructive. In Powell v. Alabama, 287 U.S. 45 (1932) the Supreme Court of the United States ruled that defendants were denied their right to counsel when the counsel did not have sufficient time to prepare the case. The fact that Dr. Kepford's testimony had to be hand written and that he was not allowed to enter many substantive documents with this testimony indicates the nature of the prejudice. There simply was not time

for Dr. Kepford to prepare a full and thorough presentation of his own testimony between the hearings of May 16 and 17, 1978, and his own testimony of June 8, 1978. Intervenors have not waited until this appeal to raise these questions. Intervenors moved prior to the hearings in May, after the hearings in May, and after the testimony in June for additional time in order to make sure that this record would be thorough and adequate. All of these motions were denied and the sense of urgency and haste prevailed. There is not any evidence or reason to support the haste in this matter; therefore, the denial of the motions for additional time, for an abuse of discretion, and a violation of due process require that the decision be reversed.

2. DID THE LICENSING BOARD COMMIT ERROR IN ALLOWING EVIDENCE WHICH DID NOT CONSIDER THE FULL AND LONG-RANGE EFFECT ON POSTERITY OF THE RELEASE OF RADON-222 IN VIOLATION OF THE NATIONAL ENVIRONMENTAL POLICY ACT AND IN FINDINGS AND IN CONCLUSIONS WHICH FAILED TO TAKE INTO ACCOUNT THE FULL PERIOD OF RELEASES OF THE SAID RADON-222 ?

(EXCEPTIONS NOS. 3, 4, 5, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29 and 30)

Intervenors objected to all of the applicants and staff evidence which failed to consider the total effect of the releases from Radon-222 for the full period of time now known that such releases will occur. The testimony relied on by applicant and staff arbitrarily sets a time limit for the consideration of Radon releases many thousands and millions of years short of the actual time that the effects will be going on. Can this arbitrary limitation comply with the National Environmental Protection Act which was made applicable to these proceedings by the case of Calvert Cliffs v. United States Atomic Energy Commission, 449 F.2d 1109 (1971)?

Intervenors turn to the exact language of the Environmental Protection Act for an answer to this question. The Act clearly and repeatedly states a steadfast concern for future generations. Note the following language:

> to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans. (Emphasis added)(§101(a))
>
> In order to carry out the policy set forth in this act, it is a continuing responsibility of the federal government to use all practical means, consistent with other essential considerations of national policy, to improve and coordinate federal plans, functions, programs, and resources to the end that the nation may -- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations. (Emphasis added) (§101(b))

Therefore, any consideration under Section 102(c)(i) of the "Environmental Impact of the proposed action" must take into account the impact on future generations and succeeding generations. The Act sets no limit on the generations and none of the reported cases indicate that the impact should not be considered beyond a certain time. Therefore, the evidence, the argument and the findings of the Licensing Board below in this matter violate the commands of the National Environmental Protection act.

In the most recent pronouncement by the United States Supreme Court on the policies and procedures of the Nuclear Regulatory Commission the Court dealt with the scope of review by the Court of Appeals over the Nuclear Regulatory Commission. In this case, Yankee Nuclear Power v. Metro Resources, 98 S.Ct. 1197 (1968), the Court deals with various questions which are not pertinent to this appeal. The Court, however, does have strong language in

the Yankee case, as well as in the later case of Tennessee Valley Authority v. Hiran Hill, Jr., 46 Law Week 4673, in emphasizing the importance of the congressional mandate in environmental disputes. The Court in Yankee Nuclear states that the purpose of the National Environmental Protection Act is "to insure a fully informed and well considered decision". The need for full information is the essence of the dispute in this case. Only intervenors have offered testimony which complies with NEPA. It is instructive to note that the Supreme Court in the Yankee Nuclear case accepted the premise of intervenors as to the long range effects to be considered in these matters with the following language:

> Vermont Yankee will produce annually well over one hundred pounds of radioactive wastes, some of which will be highly toxic. The Commission, itself, in a pamphlet published by its information office, clearly recognizes that these wastes "posit the most severe potential health hazard...." Fox, Radioactive Wastes, EAC No. IB-508,14-15 (Rev.Ed. 1969). Many of these substances may be isolated for anywhere from 600 to hundreds of thousands of years. It is hard to argue that these wastes do not constitute "adverse environmental effects which cannot be avoided should the proposal be implemented," or that by operating nuclear power plants we are not making "irreversible and irretrievable commitments of resources." 42 U.S.C. §4332(2)(C)(ii), (v).

3. DID THE LICENSING BOARD COMMIT ERROR IN NOT ALLOWING INTERVENORS' EXHIBITS AND PORTIONS OF EVIDENCE INTO THE RECORD, WHICH EXHIBITS AND EVIDENCE STATED CONTRARY POSITIONS TO THAT OF THE NUCLEAR ESTABLISHMENT AND WHICH EVIDENCE HAD PREVIOUSLY BEEN REFERRED TO BY TESTIMONY OFFERED BY APPLICANTS?

(EXCEPTIONS NOS. 8, 9, and 18)

As argued earlier, intervenors did not have sufficient time to prepare a thorough and lengthy presentation at their deposition on June 8, 1978. Therefore, intervenors' witness offered various exhibits in an attempt to round out the record and to make the Licensing Board aware of dissenting positions in the scientific community with regard to the dangers of low level radiation. Therefore, documents offered with regard to the radiation

exposures of Hanford workers dying from cancer and documents regarding the cancer risks due to the nuclear electric power generation were of relevance and importance in these hearings. They were rejected as being without foundation. However, the intervenors' witness, and in fact the applicant's witnesses, referred to the article by Ellis and Richardson and articles by Mancuso several times. The intervenors' witness had referred to these articles as being part of literature which, at the very least, should have been allowed to test the credibility and knowledge of the various witnesses as to the contending positions and schools of thought which exist in this area of scientific inquiry. Surely the documents should have been allowed as official publications in that one was authored by persons in the office of radiation programs of the Environmental Protection Agency. The other documents consisted of a statement by John Goffman before a hearing board of the Nuclear Regulatory Commission on behalf of the Sierra Club and a study of the geologic disposal of high level radioactive wastes and earth science prospective as part of a geological survey circular and another article appeared in health physics. Surely, these are not items to be treated as sophomoric rhetoric.

The exclusion of those items under the conditions of time pressure placed upon the intervenors constitute prejudical error requiring this entire matter to be reversed. Finally, the intervenors wish to quote a portion of the rejected testimony of Dr. Kepford to indicate the bias of the Licensing Board to the trenchant and philosophical prospective by intervenors' witness:

> It seems to me that herein the NRC is doing nothing but establishing scientific data whereby no new knowledge, no new information will be accepted. If one goes back

over the history of scientific development, starting, for instance, with the wheel and going on through the various scientific discoveries that have been made since the dawn of time, if one were to apply these criteria set forth by the NRC to the discovery at the time it was made, one would find that we would still be living in caves, because when scientific discoveries are new, when they are first made, of course, they are not supported by the vast majority or the majority of scientific data and knowledge on the subject. Otherwise they would not be new.

What makes them new is they go against the body of scientific data and knowledge on the subject.

Keppler's laws were new when they were put forth. Einstein's laws of relativity, the special and general, were new when they were put forth.

Indeed, the very reason we are here today goes back to Einstein. I think it is his special theory of relativity that E equals MC squared relationship, wherein mass is converted to energy in nuclear transformations.

In my opinion, the NRC is re-instituting the policies of T.D. Lysenko of the Soviet Union who sought to institute dogma in the biological research of the Soviet Union in the 20s and 30s.

The NRC should acknowledge that radically differing estimations of health effects due to low does and low does rate ionizing radiations exist; that the present date on the subject, the old data do not necessarily in any way, shape, or form, rule them out.

And, indeed, some of this data strongly corroborates the idea that low dose and low dose rate radiation increases the risk of ionization or of injury.

For example, if one takes the article from the Ellett paper and looks at table eight, the Nagasaki data, and compares the last two rows, the observed minus expected incidents of leukemia mortality and the BEIR report estimates, one sees that for the medium and high dose levels, the BEIR report does provide an adequate estimator, however, for the very low dose range.

The excess observed is much, much higher, a factor of 10 higher than would be expected using the BEIR report estimates. This is about the same range that Bross has suggested.

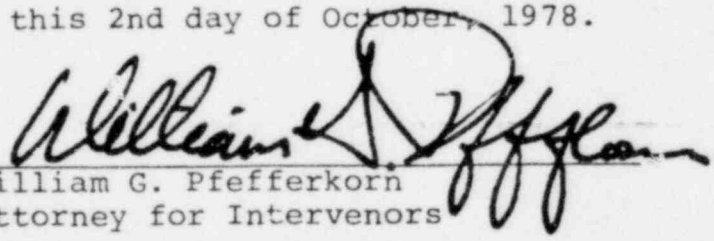
The effects are higher. This is about the same range that Mancuso suggests that low level, low does effects are higher than predicted by the BEIR report estimates, and these individuals are certainly not alone in the field of criticizing the NRC's use of health effects risk estimators.

and which may never be put into effect, or if put in effect may never be adequate to solve the problem. Findings of Fact 30, 32 and 33 engage in discussions about stabilization and are not based upon facts in the record. Finding of Fact 36 is not supported by the record and is contradicted by the evidence offered by Dr. Kepford that the linear hypothesis may be a conservative hypothesis.

III. CONCLUSIONS

It is the nature of our legal system that we avoid ultimate questions as long as possible. Perhaps this characteristic derives from human nature. Most of us avoid the hard questions. These proceedings raised the question of how far in the future must we consider the effects of uranium milling and mining. Intervenors contend that the National Environmental Protection Act answers the question for us. This matter must be reversed and sent back to the Licensing Board for consideration in light of the strict reading of the National Environmental Protection Act. This strict reading requires that the witnesses testify about the effects of Radon-222 for the entire length of time it will be effecting the world. On the record as now developed, by the evidence of the intervenors which complies with NEPA, the cost-benefit analysis must be struck against the construction of Perkins Nuclear Plant. Therefore, on account of the failure to comply with the NEPA and on account of the other errors set out herein, the initial partial decision must be reversed.

Respectfully submitted this 2nd day of October, 1978.



William G. Pfefferkorn
Attorney for Intervenors

OF COUNSEL:

PFEFFERKORN & COOLEY, P.A.
Post Office Box 43
Winston-Salem, N.C. 27102
Telephone: (919) 725-0251

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Since the NRC assumes that the entire benefit of the Perkins plants, the predominant benefits, the major benefits, are the production of electricity, compared on an absolute basis with nothing else, it seems that radon-222 and all other radioactive emissions of the nuclear fuel cycle should receive exactly the same comparison. That is, not being pounded into insignificance by some irrelevant comparison which applies equally to all fuel cycles. Background radiation comes out whether it is coal-fired generation, whether it is burning wood, or simply rubbing one's hands together to keep warm. Radon-222 still comes out of the ground.

On the other hand, the radon-222 committed to be released by the operation of Perkins goes on, essentially, indefinitely. The benefits stop after 30 years. The costs go on and are passed on, apparently quite freely, by the NRC to all future generations.

The NRC has yet to conduct, in my opinion, an honest cost-benefit analysis for any nuclear facility, because of just this kind of comparison. Everything should be put on an equal basis or there is no common basis for comparison, as was directed by the appeal board in ALAB 367. The NRC has not carried out any cost-benefit analysis in keeping with ALAB 367.

4. DID THE LICENSING BOARD ERROR IN MAKING ARGUMENTATIVE FINDINGS WHICH WERE NOT SUPPORTED BY THE EVIDENCE AND WHICH ASSUMED MATTERS NOT IN EVIDENCE AND ADOPTED HOPEFUL SCENARIOS NOT CONSISTENT WITH THE PRESENT STATE OF FACT AND LAW?

(EXCEPTIONS NOS. 11, 12, 14, 15, 16, 17 and 23)

The Finding No. 16 of the partial initial decision was not supported by the evidence. There is no evidence in the record that reclamation will occur in any hopeful fashion. In fact, at the present time there is legislation in congress which attempts to work out some basis for reclaiming the mill tailings piles which are already unreclaimed throughout many areas of the West. Also, in Finding No. 17 the Board relies on the hopeful prospect that society will improve in its environmental matters in the future. This, again, does not square with reality and is an impermissible finding which does not have a basis in fact in the record. Also, Findings 27, 28 and 29 make the same mistake as they assume legal programs which have not yet been put in effect

CERTIFICATE OF SERVICE

I hereby certify that copies of Brief in Support of Exceptions and Notice of Appeal from Partial Initial Decision

in the above-captioned matter have been served on the following by deposit in the United States mail this 2nd day of October, 1978.

Elizabeth S. Bowers
Chairman, Atomic Safety
and Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. Donald P. deSylva
Associate Professor of
Marine Science
Rosenstiel School of Marine
and Atmospheric Science
University of Miami
Miami, Florida 33149

Dr. Walter H. Jordan
881 West Outer Drive
Oak Ridge, Tennessee 37830

Chairman, Atomic Safety
and Licensing Board Panel
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Chairman, Atomic Safety and
Licensing Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

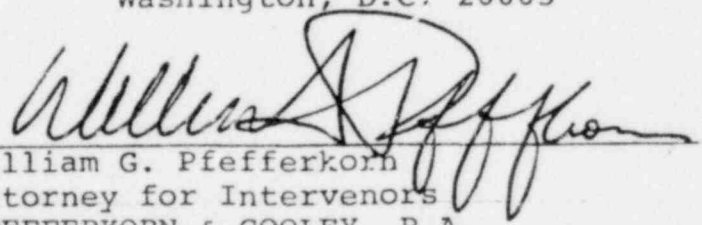
Charles A. Barth, Esq.
Counsel for NRC Regulatory Staff
Office of the Executive Legal
Director
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

William A. Raney, Jr., Esq.
Special Deputy Attorney General
State of North Carolina
Department of Justice
Post Office Box 629
Raleigh, North Carolina 27602

William L. Porter, Esq.
Associate General Counsel
Duke Power Company
Post Office Box 2178
Charlotte, North Carolina 28242

Mr. Chase R. Stephens
Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Mr. J. Michael McGarry, III
Debevoise and Liberman
700 Shoreham Building
806 Fifteenth Street
Washington, D.C. 20005



William G. Pfefferkorn
Attorney for Intervenors
PFEFFERKORN & COOLEY, P.A.
Post Office Box 43
Winston-Salem, N.C. 27102
Telephone: (919) 725-0251