

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

NRC PUBLIC DOCUMENT ROOM

In The Matter Of)

DUKE POWER COMPANY)

(Amendment to Operating License SNM-1773)
for Oconee Spent Fuel Transportation and)
Storage at McGuire Nuclear Station))

) Dkt. No. 70-2623

NATURAL RESOURCES DEFENSE COUNCIL
RESPONSE TO STAFF MOTIONS FOR
SUMMARY DISPOSITION

Introduction

The Staff motions follow the contentions of NRDC and we will address them in that context. Our own motion for summary disposition raises an issue which cuts across the contentions and goes to what we feel is the heart of the controversy here.

One aspect of the Staff motions which we oppose on a generic basis is their assertion that a contention once admitted may be later rejected on a motion for summary disposition if there is no additional factual basis beyond that contained in responses to discovery. As should be apparent from the affidavits attached to our motion for summary disposition, the inability of our experts to provide a wealth of information in response to discovery requests was due to the fact that (1) at that time they had not yet focussed on this case, and (2) they needed the data subsequently obtained from our own discovery requests to begin serious work on the issues. Not surprisingly, the bulk

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of the data needed to make our case was in the possession of the Applicant or depended upon actions taken or not taken by the Staff. This of course would be typical for most intervenor cases. See, e.g., Calvert Cliffs' Coordinating Comm. v. AEC, 449 F.2d 1109, 1118-19 (D.C. Cir. 1971); York Committee for a Safe Environment v. NRC, 527 F.2d 812 (D.C. Cir. 1975); Scenic Hudson Preservation Conference v. FPC, 354 F.2d 608, 620-21 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966); American Public Power Ass'n v. FPC, 522 F.2d 142, 147 (D.C. Cir. 1975) (Bazelon, C.J., concurring); Citizens for Safe Power v. NRC, 524 F.2d 1291, 1304 (D.C. Cir. 1975) (Bazelon, C.J., concurring); Friends of the Earth v. Atomic Energy Commission, 485 F.2d 1031 (D.C. Cir. 1973) (Opinion of Chief Judge Bazelon).

The Staff argument makes a mockery of the prehearing process and operates on the premise that a party is obligated to present their evidentiary case in advance of the hearing, even if it has not been prepared, or else risk having contentions originally judged as valid thrown out as invalid for lack of a factual basis. The only legitimate test for summary disposition is whether there is a factual dispute which prevents summary action. The Staff ignores that crucial element in its motions and for that reason alone they must fail.

qualified manager, not an expert witness.¹

The affidavit of Spitalny and Glenn focusses on one NRDC alternative to transshipment -- i.e., rerack now with poison racks, allow FCR to be lost and in the total time provided build an independent spent fuel storage facility at Oconee to hold a lifetime of Oconee fuel. We agree with the affiants that this option is "viable" and "indeed technologically and economically feasible." Spitalny and Glenn affidavit, p. 3.

Having reached this totally rational conclusion, affiants begin to seek ways to undermine their own conclusion. First they confirm that actions now being taken by Duke to pursue other options than the NRDC approach do substantially foreclose the NRDC approach. They list the costs of poison racks and then add (Spitalny and Glenn affidavit, pp. 3-4):

This cost is in addition to the cost which has already been expended by Duke for the acquisition of high density stainless steel racks. These stainless steel racks contracted through Combustion Engineering have already been designed, analyzed and are presently being delivered to the Oconee site.

Later they conclude (Spitalny and Glenn affidavit, p. 10):

The use of poison racks and the construction of a new facility to make Oconee independent in terms of spent fuel storage capacity would leave the applicant with two solutions to the same problem [i.e., (1) total capacity presently within their system, and (2) excess capacity at Oconee.] This cannot be considered cost effective.

1/ Judging by the form of the Staff affidavits, an effort appears to have been made to qualify Mr. Spitalny to be the sole or principal Staff witness at the hearings. We should like to make clear now our unalterable opposition to that and to suggest to the Staff that they make their intentions clear early to avoid substantial disruption of the hearing schedule.

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Other expenses at Oconee include the application for a license amendment to rerack the basin serving Oconee Units 1 and 2 with its associated costs and the purchase of high density stainless steel racks. A decision on the license amendment is estimated by the Commission in early June. A decision to negate the transshipment action and require the use of poison racks at Oconee would have as an added cost those costs already incurred in procuring and licensing non-poison racks.

Affiants also assert that poison racks will require too long to be ordered and licensed and thus loss of FCR is unavoidable. The attached affidavit of Dr. Tamplin, based on a conversation with Staff project manager for Oconee, Martin B. Fairtile, indicates that licensing time of poison racks is comparable to the time for non-poison racks -- i.e., approximately 4 months. As recently as December 29, 1978, the Applicant conceded that it could order and install on a timely basis poison racks at Oconee, in two phases, but that the source of delays would be licensing (Exhibit A, attached), not ordering or installation as affiants Glenn and Spitalny assert. Of course, it is now six months later and the poison rack option is now said to be foreclosed by the passage of time and the selection of less desirable alternatives. In short, one interim spent fuel storage action significantly forecloses alternative interim spent fuel storage options.

Affiants Spitalny and Glenn also assert that the economic cost of an ISFSI is on the order of \$30,000 per assembly. Glenn

and Spitalny affidavit, p. 7.² This estimate is in sharp contrast with the proposal of Stone and Webster submitted to Duke in September 1978 and estimating an ISFSI with a capacity of approximately 2600 assemblies with racks included at only \$11,000 per assembly and total time from ordering to operation of 33 months (Exhibit B, attached). Even with use of non-poison racks (essentially already approved) which extend the spent fuel storage capacity at Oconee through May 1982, there is still time to order an ISFSI for Oconee without trans-shipment.

No attention is given in the Spitalny and Glenn affidavit to pin storage -- i.e., compaction -- although Duke has had this under consideration since October 1977 at an estimated cost of \$400,000 capital invested (Exhibit C attached). The pin packing could increase the storage capability of the Oconee pools up to 80%. A similar proposal is being actively pursued by Maine Yankee. See No Need For AFRs, by Dimitri Rotow (May 1, 1979), pp. 11-12, attached to NRDC Motion for Summary Disposition

2/ One reason given for rejecting the ISFSI as too expensive is (Affidavit of Glenn and Spitalny, p. 7):

Such an expense does not seem to warrant consideration, in light of the expense already incurred by Duke enlarging its pools at other facilities.

This is further evidence that Duke's current proposals are substantially foreclosing options.

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Surely no one can seriously contend in the face of all these facts that there are no viable and advantageous alternatives to Duke's cascade program. As we stress in our Motion for Summary Disposition, what is now needed is a thorough and objective look at these options before it is too late.

The Staff's efforts to establish the radiation exposure levels for various interim spent fuel storage options as indisputable facts run afoul of the fact that the Applicant estimates such exposures at 5 to 6 times higher.³ The Staff is manipulating, without objective standards, the terms "realistic" and "conservative" to attempt to explain the differences. Nehemias affidavit, p. 2. In addition, the Nehemias affidavit continues to present its "reasonable assumptions" about what exposures will be in lieu of the vigorous ALARA analysis required by § 20.1(c). For instance, the table attached to the Nehemias affidavit provides no basis to compare the situation at Oconee and McGuire to the cases given. Those cases vary in exposure by an order of magnitude from the lowest to the highest. At best the table discloses that worker exposures vary widely from plant to plant.

^{3/} In the Parsent affidavit (p. 3), there is a summary of possible exposure levels from several different estimates which further underscores the essential factual dispute which surrounds the dose calculations. While the Staff may consider all of these doses to be "negligibly small," the fact is, as the BEIR committee has consistently stated, we must assume that all radiation exposure, no matter how small, is harmful.

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The Staff factual presentation on the full core reserve (FCR) is curious. The affiant Carter maintains that (p. 4):

None of the postulated situations presented any compelling safety basis for requiring maintenance of a full core reserve; however, lack of such capability can be costly in terms of extended outage time.

He continues (p. 4):

The benefits from prudent design, in availability of the facility and reduction of man-rem exposures for inspections and repairs, are self evident.

Reducing man-rem exposures is, pursuant to § 20.1(c) a safety consideration. If an applicant is allowed to reduce storage capacity below an FCR, because of the economic balancing used in the ALARA determination, the higher man-rem exposures associated with working near an in-place core will always be ALARA in lieu of shutdown costs ranging up to \$500,000/day. Glenn and Spitalny affidavit, p. 5. This suggests that FCR should be a requirement or that ALARA calculations made after loss of FCR should disregard the economic costs of shutdown. Otherwise, the flexibility now allowed in the FCR will be merely a flexible approach to worker health and safety.

The Carter affidavit also emphasizes our point that spent fuel transfers to McGuire will substantially foreclose desirable actions at McGuire. Mr. Carter indicates that a principal reason for early Staff approval of reracking applications at reactors is (p. 6):

(1) modifications to increase spent fuel storage capability can be done with less personnel exposure to radiation when the pool has no spent fuel in it or less than a full complement of spent fuel . . .

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Of course, allowing transshipment to McGuire without first requiring the maximum reracking at McGuire is directly contrary to that Staff reasoning.

Argument

Contention 1

Most of the Staff discussion is premised on a misreading of the contention and a misinterpretation of the law. The Staff asserts that our contention has two illegal objectives (Memo, pp. 12-14):

- 1) We are seeking to postpone a decision on the transshipment option until the generic review is complete.
- 2) We are seeking to prevent the transshipment approval until the total permanent spent fuel storage problem for the nation is shown to be solvable.

With respect to the first point, we read the Commission statement and articulation of five factors as permitting a party to establish in opposition to a proposed action any of the following:

- 1) The proposed action does not have independent utility from other interim actions by the same applicant -- i.e., it is a necessary part of a series of actions proposed by the applicant such as Duke's cascade program.
- 2) The proposed action does not have independent utility from other interim actions by third parties -- i.e., it makes sense only when viewed in the context of anticipated action by a third party, such as Duke's anticipation that before its cascade program is exhausted there will be a government AFR.

3) The proposed action is likely to significantly foreclose future options which the applicant might pursue to solve its interim spent fuel storage problem -- i.e., money invested or pools contaminated now make some options in the future less attractive than they would be were the present action not taken, such as contamination of the McGuire spent fuel pool with Oconee fuel or commitments of funds to transshipment in lieu of construction of a new spent fuel pool at Oconee.

4) The proposed action is likely to significantly foreclose future options which might be taken by the applicant to solve its interim spent fuel storage problem by significantly encouraging a third party to pursue an interim spent fuel storage plan for the applicant -- i.e., the inherent short-term, less than lifetime storage capabilities of the Duke cascade plan inherently provide support for a government claim that there is a need for a government or private AFR.

The Commission left all these possibilities open and did not intend to foreclose discussion or analysis of any of them at an individual licensing proceeding. NRDC Memorandum in Support of Summary Disposition, May 21, 1979, pp. 3-5.

~~-----~~ With respect to the second alleged illegality of our position, the Staff is also wrong. First, one point we were making is that the Duke transshipment proposed has no independent utility if it does not in and of itself bridge the gap between interim storage and the availability of permanent storage. In short, there is no independent utility to transshipment to McGuire unless it is clear that when the transshipment is over there will be no need for further interim measures. If further interim measures are needed, then at a minimum Commission policy requires that the entire program of interim measurbs be evaluated for the applicant or else the problem of segmentation

clearly arises. Indian Lookout Alliance v. Volpe, 484 F.2d 11, 18-19 (8th Cir., 1973); Named Individual Members of the San Antonio Conservation Society v. Texas Highway Department, 446 F.2d 1013, 1023-24 (5th Cir., 1971). These cases held that the independent utility depended upon the overall and major purpose of the proposal. Here the major purpose is to keep Oconee running, a purpose which cannot be served by the mere transshipment to McGuire but necessarily depends upon subsequent interim steps -- either Duke's cascade program or a government or private AFR. Thus the total proposal must be evaluated in this proceeding before a decision on the transshipment proposal can be made.

A second basis for the Staff error is the decision in Minnesota v. Nuclear Regulatory Commission, ___ F.2d ___ (D.C. Cir., decided May 23, 1979), which held that approval of any measure designed to permit expansion of the quantity of spent fuel must be preceded by a decision from the Commission that, either there is reasonable assurance that the spent fuel generated will be able to be safely and permanently disposed of before the end of the operating life of the reactor generating it, or that the storage provided for it will be safe until such permanent disposal is available. That decision has not yet been made by the Commission and until it is there cannot be any approval of the proposed action here. See NRDC Motion for Suspension of Hearing Schedule, June 1, 1979.

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Contention 2

Much of the disagreement on this contention stems from the definition of the proposed action. The Staff would limit the proposed action to the transshipment of 300 fuel assemblies. We contend that the proposed action is at a minimum Duke's cascade plan, which has markedly more significant environmental impacts.⁴

The Staff also ignores the fact that radiation exposures from 120-day-old fuel are judged by a Staff expert to be more substantial by a factor of 2 or 3 than from fuel which is cooled for an additional 4-2/3 years. See attached File Memo from Catherine R. Mattsen (December 6, 1978) (without attachments) (Exhibit D). Thus, even though the spent fuel here will be held a little longer, the fact remains that exposures to workers would be significantly less were older fuel used, or were there less transshipment and thus less exposure time.

^{4/} The implementation of new safeguards requirements may eliminate the sabotage impact but could substitute additional worker exposure (additional personnel involved in transportation travelling a longer route to avoid populous areas) and additional economic costs. See attached letter to J.J. Mackay from D.F. Frech (October 11, 1978) (Exhibit E) detailing the cost sensitivity of the transshipment based upon time involved, and Applicant's answer to Staff Question 23 (revised March 30, 1979) (Exhibit F) detailing how man rem dosages are related to exposure time.

Contention 3

As with Contention 2, the Staff position here prescinds from an incorrect interpretation of what is the proposed action and from an inaccurate description of the magnitude of the environmental impacts. In addition reliance on Sierra Club v. Morton, 510 F.2d 813, 825 (5th Cir., 1975), for the proposition that, where a discernable difference in environmental impacts exists between two options, they need not be compared if the impacts themselves are small, is misplaced. That case merely held that, where a major federal action significantly affecting the environment is being analyzed, alternatives to it will not be analyzed when they do not alter the impacts. In that case, the preferred alternative was to have the identical project undertaken by two different entities. Clearly no discernable impact difference could be found. In this case, the alternatives involve two entirely different proposals for accomplishing the same result.

In effect, the Staff argument on negligible impacts here is merely a reiteration of its claim that no significant impacts are involved and no impact statement is required. But even if no impact statement is required, the Staff is nonetheless obligated to consider alternatives to its proposed action by virtue of § 102(2)(E) of the National Environmental Policy Act. Trinity Episcopal School Corporation v. Romney, 523 F.2d 88, 93 (2d Cir., 1975); Environmental Defense Fund v. Corps of Engineers, 492 F.2d 1123, 1135 (4th Cir., 1974). In this case, there are conflicts between the use of available resources in deciding

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how to handle the interim spent fuel problem. In one case, the cascade plan, worker exposures and economic costs are incurred to utilize the spent fuel pools of newer reactors to store spent fuel from older reactors, thus reducing on-site storage capabilities for those newer reactors and making subsequent modifications in such storage more costly and more hazardous. In the other case, the newer reactors expand and use their storage capacity for lifetime needs and older reactors make a one-time expansion to build a new pool on-site to accommodate their lifetime needs, thus reducing worker exposures, eliminating the future risk of inadequate storage capacity and saving total costs. Even if the environmental impacts are not significant, and Section 102(2)(C) of NEPA were not applicable, Section 102(2)(E) does apply and requires consideration of alternatives.

Contention 4

As our first summary disposition motion (May 1, 1979) indicates, the Staff is required to complete an ALARA analysis which includes an in-depth analysis of alternatives. Instead we have the Nehemias Affidavit, which is filled with assumptions and does not contain the vigorous analysis required. The Staff, relying on Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 98 S.Ct. 1197 (1978), seeks to shift to NRDC the burden of conducting the ALARA analysis. The Staff distorts the definition. In this case, we have gone far beyond the intervenors in the Midland case who merely asserted conservation

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was an alternative to the plant. The affidavits submitted by NRDC demonstrate substantial evidentiary effort. We cannot, however, be expected to do the Staff's work for it or to conduct analyses based on radiation exposure records not in our possession. See cases cited on page 2, supra.

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Contention 5

The Staff analysis does not make sense. Either FCR should be required to be retained or not. Either it has some health, safety, environmental or public interest value, or it does not. The ALARA analysis after loss of FCR on whether to shut down a reactor or do work near the core will tend to favor allowing the exposures. To keep the exposures ALARA, retention of an FCR would seem to be an essential licensing requirement.

On the other hand, it is not clear that such retention is required by reserving space in the spent fuel storage pool. In Portland General Electric Co. (Trojan), ALAB-531, decided March 21, 1979, Slip Op. at p. 29, the Appeal Board held:

Finally, Oregon complains of the failure of the Licensing Board to direct a technical specification obligating the applicants to maintain a full core reserve in the spent fuel pool; i.e., to leave vacant an area within the pool of sufficient size to house on full core of spent fuel. According to Oregon, such a reserve is essential in order to enable any necessary repairs to be made in the pool. The simple and dispositive answer is that, if a full core reserve is not then available, shipping casks can be employed to hold the spent fuel assemblies that must be removed to obtain space to perform the repair work. Such casks are available for either purchase or rental on relatively short notice. See Testimony of Edward Lantz, foll. Tr. 4473, at pp. 1, 3; Tr. 4223-27.

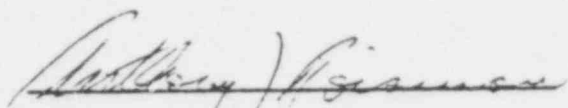
There is no reason or analysis to suggest that is not a viable option to retention of an FCR in the spent fuel pool here.

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Conclusion

For the reasons stated, the Staff motion for summary disposition should be denied.

Respectfully submitted,



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Dated: June 5, 1979

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