August 5, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE
ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
	)	Docket No.
VIRGINIA ELECTRIC AND POWER COMPANY	)	50-338/339-OLA-1
	)	
(North Anna Power Station, Units 1 and 2)	)	

APPLICANT'S MOTION FOR
DIRECTED CERTIFICATION

I.

Introduction

Applicant, Virginia Electric and Power Company ("Vepco"), instituted this proceeding by filing on July 13, 1982, an application for an amendment to the operating license for its North Anna Power Station ("North Anna"). The amendment would authorize the receipt and storage at North Anna of 500 spent fuel assemblies from Vepco's Surry Power Station ("Surry") in Surry County, Virginia. The amendment is needed because the current North Anna license permits the storage of only North Anna fuel at North Anna. The Federal Register notice provided that the proceeding would consider an amendment to the North Anna operating license to permit "receipt and storage" of 500 spent fuel assemblies from Surry. 47 Fed. Reg. 41892 (Sept. 22, 1982). The notice did not mention shipment of spent fuel from Surry to North Anna.

On October 22, 1982, the County of Louisa, Virginia and the Board of Supervisors of the County (collectively, the "County")

filed a Petition for Leave to Intervene in this proceeding. On January 17, 1983, the County filed its contentions, raising, among others, issues concerning the health and safety aspects of the proposed shipments from Surry to North Anna. A copy of the County's contentions is attached as Attachment A. In an Order (Memorialization of Special Pre-hearing Conference), dated February 18, 1983, the Atomic Safety and Licensing Board ("ASLB" or "Board") ordered briefing on three issues. One of those issues was whether the Board could consider the health and safety effects of shipping spent fuel from Surry to North Anna. Vepco, the NRC Staff and the other petitioner for intervention in the proceeding--Concerned Citizens of Louisa County--all took the position in their briefs that the Board could not consider such issues.

In a Memorandum, dated June 10, 1983 (the "Memorandum"), the ASLB held that it could consider the health and safety effects of transportation of spent nuclear fuel from Surry to North Anna.[1] A copy of the Memorandum is attached to this Motion as Attachment B.

Vepco moves the Appeal Board, pursuant to 10 C.F.R. § 2.718(i) and Public Service Company of New Hampshire (Seabrook

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[1]The Atomic Safety and Licensing Board has not yet followed up the Memorandum with an Order. Thus, none of the County's contentions concerning health and safety aspects of transshipment has yet been formally admitted in this proceeding. Their admission in principal part, however, would seem to be a foregone conclusion in light of the Memorandum.

Station, Units 1 and 2), ALAB-271, 1 NRC 478, 482-83 (1975), to direct certification of this issue. The issue, as stated in the Memorandum, is:

> Whether the Board may consider the health [and] safety . . . impacts of the transshipment of spent fuel from Surry to North Anna.

II.

Justification For Directed Certification

A. The Board's Decision Is Wrong

The Appeal Board has held that "the decision on the appropriateness of interlocutory review could be . . . influenced by the degree of probability that the Licensing Board arrived at the wrong result." Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2), Docket Nos. 50-443 OL, -444 OL (June 20, 1983). As will be discussed more fully below, Vepco believes that the Board's decision in this case is clearly wrong.

Vepco already possesses all of the federal authorizations it needs to transport spent fuel from Surry to North Anna. Vepco has authority pursuant to its Surry operating licenses to possess by-product and special nuclear material produced in connection with operation of the facility. It has authority under 10 C.F.R. § 70.42 to transship spent fuel from Surry to a facility authorized to receive it and a general license under 10 C.F.R. § 71.12(b) to deliver spent fuel to a carrier for transport provided a spent fuel cask is used that has been issued a certificate of compliance by the NRC. In addition, on July 28,

1982, Vepco obtained route approvals from NRC pursuant to 10 C.F.R. § 73.37(b)(7) for transshipment of spent fuel from Surry to North Anna. Thus, if the Board explores the health and safety aspects of Vepco's shipping plans, it will be reviewing matters already fully authorized by NRC.

Two other licensing boards have decided, in analogous circumstances, that they had no jurisdiction over health and safety issues. In Duke Power Co. (Catawba Nuclear Power Station, Units 1 and 2), Docket Nos. 50-413, -414, Memorandum and Order at 7 (July 8, 1982), the applicant requested permission to receive and store at its Catawba Station spent fuel from other licensed reactors in its system. An intervenor attempted to raise questions about the safety of transportation of spent fuel to Catawba. The board excluded those contentions that related to the transportation of irradiated fuel "because the safety aspects of this activity are controlled by 10 C.F.R. Part 71 and 73, and by DOT regulations and is [sic] outside the scope of this hearing." Id. at 7-8. Similarly, in Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1 and 2), Docket Nos. 50-400 OL, -401 OL, Memorandum and Order (September 22, 1982), intervenors in an operating license proceeding contended that radiological monitoring along routes to be used to ship spent fuel from the Robinson and Brunswick plants, which already held NRC licenses, would be inadequate. The Board rejected this contention, holding that "this is a health and safety issue over

which the Board has no jurisdiction." Memorandum and Order at 57.

Ignoring these authorities, with respect to the argument that Vepco already possesses all the authorizations necessary to ship from Surry to any destination, the Board simply said:

> [W]e do not understand that Louisa County is requesting that we review the merits of the Surry operating license amendments and, at least in part, modify, suspend or revoke those amendments--if that was its purpose, its recourse would be to file a request pursuant to 10 C.F.R. § 2.206. Instead, we understand that Louisa County requests that we consider the health and safety impacts of the transport of spent fuel from Surry to North Anna, which have never been considered before with North Anna being the destination, and that, thereafter, we should either deny the proposed operating license amendment to receive and store at North Anna spent fuel assemblies from Surry or authorize the issuance of the amendment subject to conditions with respect to transportation of spent fuel. . . . We find that Louisa County's arguments are well taken. . .

Memorandum at 4.

There are two serious shortcomings in this reasoning. First, it would mean that with each new destination proposed by a licensee for its spent fuel shipments, a new transshipment health and safety analysis would be required if sought by an intervenor. That view would render largely meaningless the NRC approvals already in place, not a very efficient or sensible outcome. Second, the Board suggests that while it may not review the earlier Surry approvals, it may "deny the proposed operating license amendment to receive and store at North Anna spent fuel assemblies from Surry or authorize the issuance of the amendment

subject to conditions with respect to transportation of spent fuel . . . ." But if the Board may not review the existing approvals directly--a point the Board seems to concede--then surely it cannot do so indirectly by effectively denying Vepco the right to make such shipments or by permitting them only subject to conditions imposed in the North Anna license.

Presumably, in light of Vepco's existing authorization to ship spent fuel the Notice of Hearing is narrowly drawn. Of course, a licensing board does not have the power to explore matters beyond those that are embraced by the notice of hearing for the particular proceeding. Public Service Co. of Indiana (Marble Hill Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976). The Board's jurisdiction in this proceeding is limited to receipt and storage of Surry assemblies at North Anna; the notice does not authorize the Board to explore the health and safety aspects of spent fuel shipment. With respect to this limitation, the Board, citing Consumers Power Company (Big Rock Point Nuclear Plant), ALAB-636, 13 NRC 312, 324 n. 22 (1981), held that although notice in this proceeding was limited in terms to "receipt and storage," the notice "fairly raised" issues involving the health and safety effects of transportation to North Anna.

Vepco does not dispute that issues "fairly raised" by an action noticed in the Federal Register may be within the Board's jurisdiction. The caselaw does not, however, support the Board's ruling. The very cases cited by the County--Consumers Power

Company and Commonwealth Edison Co. (Zion, Units 1 and 2, ALAB 616, 12 NRC 419 (1980)--compel the conclusion that issues "fairly raised" should be limited to those that are the intended result of the action then before the Board, and do not include matters already approved or authorized by the Commission:

> As the Board correctly perceived, its jurisdiction was limited by the Commission's notice of hearing. That jurisdiction extended only to issues fairly raised by the application to modify the spent fuel pool, the sole matter which the Commission had placed before it. This was why Board Question 4(b) was drawn narrowly and sought evidence only about whether the Zion facility's emergency plan needed to be changed "as a result of the proposed modification of the spent fuel pool and the proposed operation of the Station with increased spent fuel storage capacity." The Board was not empowered to consider whether the Zion facility should have been licensed to operate in the first instance, or whether the emergency plan approved in conjunction with that license was generally in need of revision.

Zion, 12 NRC at 426.[2] See also Portland General Electric Co.,

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[2]Citing Zion, the Appeal Board in Consumers Power Company (Big Rock Nuclear Plant), ALAB-636, 13 NRC 312, 324 n.22 (1981), held that continued operation, as the "intended result" of an expanded spent fuel pool, was an issue fairly raised by an application to modify a spent fuel pool. Consumers Power Company, however, involved only a NEPA issue. While the Board in this case might have jurisdiction under NEPA to consider the environmental impacts of transportation of spent fuel from Surry to North Anna, contrary to the Board's assertion, Consumers Power Company does not support its jurisdiction to consider health and safety issues. If the decision in that case were construed, as the ASLB in this case has construed it, to mean that licensing boards have jurisdiction over the health and safety aspects of any activity that is a necessary result of the proposed action--

(Trojan Nuclear Power Plant, LBP-78-40, 8 NRC 717, 745 (1978) ("Many of the concerns articulated by Intervenors . . . involve matters beyond the scope of issues to be considered in the hearing on interim operation . . . . We [the ASLB] are not authorized to examine matters that were explored at the construction permit or operating license stages nor can we expand the issues beyond those related to the design deficiencies that resulted in the notice of hearing which described the issues we are empowered to consider").[3] The health and safety aspects of transshipment of Surry spent fuel--an action already authorized by the Commission--are not matters "fairly raised" by the limited notice for receipt and storage at North Anna.

One other point bears mentioning. The Staff Safety Evaluation Reports issued in connection with the Surry operating licenses did not explicitly deal with the health and safety aspects of spent fuel shipments. For this reason, in its brief to the ASLB, Vepco pointed to the analyses in the Surry Final Environmental Statements simply to emphasize that the Staff had in fact reviewed the health and safety effects of spent fuel shipments before the Surry licenses were issued.

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even if that activity has been fully approved by NRC--then it would be inconsistent with the decision in Zion quoted above in the text.

[3]The Appeal Board affirmed the ASLB's decision, holding that general safety issues and the need for power were beyond the scope of a special proceeding convened to consider interim operation of a control building. Portland General Electric Co. (Trojan Nuclear Plant), ALAB-532, 9 NRC 287, 289-90 (1979).

With respect to these Surry environmental reviews, the Board simply noted that "the two Surry Final Environmental Statements issued in 1972 did not consider the health and safety impacts of the now proposed transshipment of spent fuel to North Anna." Memorandum at 4. Again, the Board was misled by its preoccupation with the precise destination of Vepco's proposed shipments. The health and safety aspects of transshipment of spent fuel from Surry were in fact considered in the earlier Surry environmental reviews, albeit with Barnwell, South Carolina as the assumed destination.[4] That the assumed destination was Barnwell rather than North Anna does not mean that the health and safety impacts of transshipment may now be reconsidered.[5] In any event, putting the FES's aside, the Surry licenses issued on the strength of the Safety Evaluation Reports, together with the general licenses provided in NRC regulations, in fact authorized the shipments that Vepco now proposes to make, and so issuance of the Surry licenses effectively foreclosed the transshipment health and safety issues that the Board now holds are admissible.

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[4] See Final Environmental Statement, Surry Power Station, Unit 1 at 128-31, 137-38 (May 1972), Final Environmental Statement, Surry Power Station, Unit 2 at 128-31, 137-38 (June 1972).

[5] Whether and to what extent the Board may review the environmental effects of Vepco's proposed shipments has not yet been resolved by the Board. That issue is not a subject of this Motion.

In sum, Vepco needs no further authorization for the act of shipping spent fuel. The health and safety issues posed by Vepco's proposed spent fuel shipments have been addressed already and resolved in other regulatory forums, both within and outside of the NRC. The Notice of Hearing is narrowly drawn. The ASLB simply lacks any authority to deny or modify Vepco's proposed amendment for receipt and storage at North Anna of Surry's spent fuel based on its own view of how best to deal with the health and safety issues surrounding the shipment of spent nuclear fuel.

B. Commission Policy Requires Directed Certification

The fact that a licensing board's decision is wrong does not, of course, in itself justify directed certification. Seabrook, supra, Memorandum and Order at 3. The Commission has, however, stressed the need for certification of significant legal and policy questions:

> If a significant legal question or policy question is presented on which Commission guidance is needed, a board should promptly refer or certify the matter to the Atomic Safety and Licensing Appeal Board or to the Commission.

Matter of Statement of Policy on Conduct of Licensing Proceedings, 13 NRC 452, 456 (May 20, 1981).

The standard for discretionary interlocutory review set out in the Commission's Statement of Policy was applied in the Appeal Board's recent decision in Duke Power Co. (Catawba Power Station), ALAB-687, 16 NRC 460 (1982), vacated in part, CLI-83-19, 17 NRC__ (June 30, 1983). In that decision, as here, the Board was presented with an issue that controlled the

admission of certain contentions.[6] The issue involved the circumstances under which the ASLB could conditionally admit contentions that it had found to fall short of the required degree of specificity. 16 NRC at 465. The Board granted interlocutory review. Id.

In Catawba, the Appeal Board in effect applied a two-step analysis deriving directly from the Statement of Policy: first, whether a significant legal or policy question was presented; and second, whether appellate guidance was needed on that question. 16 NRC at 465.[7] The Appeal Board found that the issue involved a generic legal question, not merely a question specific to the case itself; thus it satisfied the criterion that the issue be a "significant legal or policy question." The Appeal Board then noted that the issue had not been addressed squarely at the appellate level; thus, the criterion that the issue require the Commission's guidance was also satisfied. As will become clear

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[6]The issue in Duke Power came to the Board by way of referral from the ASLB (pursuant to 10 C.F.R. 2.730(f)) rather than, as here, by way of a motion for directed certification (pursuant to 10 C.F.R. 2.718(i)). But this difference is immaterial. As the Appeal Board has noted before, the standard for its accepting a referral also defines the standard for its directing certification. See, e.g., Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-634, 13 NRC 96, 99 ("whether review should be taken on 'certification' or by referral before the end of the case turns on [the same factors]").

[7]The Appeal Board in Catawba accepted a licensing board referral, basing its decision on the Statement of Policy even though it found that failure to accept the referral would not affect the structure of the proceeding in any material way and would not result in unusual delay.

in the discussion below, both of these criteria are met here. Further, the legal question at issue in this case is important for reasons besides its generic quality.

1. The Significance of the Legal Question Involved

Whether an ASLB has authority to deal with transshipment health and safety is a legal question, pure and simple. Moreover, it is a question of important generic application. It may arise in any case in which permission is sought to receive and store at one station spent fuel assemblies shipped from another. To date, at least four licensing proceedings have involved requests to receive and store spent nuclear fuel from another plant.[8] The Nuclear Waste Policy Act of 1982, Pub. L. 97-425, of course, requires that a federal repository for high-level radioactive wastes begin operation in 1998. § 302(a)(5)(B), 96 Stat. 2201, 2258. At the same time, it imposes on utilities the primary responsibility for coping with their own interim spent fuel storage needs between now and 1998. Thus, the move by utilities toward providing their own solutions to their interim spent fuel storage problems may be expected to gather momentum,

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[8] In addition to the Vepco application in this case, such proposals are or have been involved in at least three other proceedings. See Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), Docket Nos. 50-413, -414 (July 8, 1982); Carolina Power and Light Co. (Shearon Harris Nuclear Power Plant, Units 1 and 2), Docket Nos. 50-400 OL, -401 OL (September 22, 1982); Duke Power Co., Amendment to Materials License SNM-1773-Transportation of Spent Fuel From Oconee Nuclear Station for Storage at McGuire Nuclear Station), ALAB-651, 14 NRC 307 (1981).

and the issue posed by this Motion may be expected to arise again and again.

Moreover, the Nuclear Waste Policy Act indicates that the issue decided by the ASLB is an important one. The Act reflects on its face the fact that the efficient licensing of proposals for the interim storage of nuclear waste is a matter of national importance. Congress ordered the Commission and other authorized officials to

> . . . take such actions as such official[s] consider[ ] necessary to encourage and expedite the effective use of available storage, and necessary additional storage at the site of each civilian nuclear power reactor consistent with --
>
> (1) the protection of the public health and safety, and the environment;
> (2) economic considerations;
> (3) continued operation of such reactor;
> (4) any applicable provisions of law; and
> (5) the views of the population surrounding such reactor.

§ 132, 96 Stat. 2201, 2230.

This congressional action confirms that the issue in this proceeding is "significant" within the meaning of the Statement of Policy because it involves the licensing of an interim spent fuel storage proposal. And because it urges the expeditious licensing of such proposals, where licensing is appropriate, the Act supports the conclusion that the issue should be dealt with by the Appeal Board without awaiting the completion of

proceedings before the ASLB.[9] If the Board's decision in this case is correct, licensees need to know it now.

Thus, given its generic nature, its practical importance, and the Congressional attention devoted to it, the significance of the legal issue that Vepco asks the Appeal Board to address is apparent.

2. The Need for the Appeal Board's Guidance

The Appeal Board has not addressed the issue of whether an ASLB may consider the health and safety implications of shipping spent nuclear fuel in a proceeding to authorize one nuclear plant to receive and store spent fuel assemblies from another. The fact that the Appeal Board had not addressed the issue before it was, in itself, enough to constitute the requisite need for the Appeal Board's guidance in Catawba, 16 NRC at 465. Here, in addition to the absence of any consideration of the issue at the appellate level, the licensing boards have divided on the question now that the ASLB in this case has departed from the holdings of two earlier boards.

Given the rising importance of the issue as a practical matter for nuclear power plants across the country, this split

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[9] If directed certification is denied and Vepco prevails on the merits of the health and safety aspects of transshipment, the question decided by the ASLB will not be reached at all on appeal, and future applicants will have to run the same broadened gamut of licensing hurdles.

among licensing boards underscores the need for prompt guidance on the appellate level.

C. The Decision Will Affect The Basic Structure of the Proceeding in a Pervasive and Unusual Way

Even in the absence of the Statement of Policy, directed certification would be appropriate in this case. Prior to the adoption of the Statement of Policy, the Appeal Board often stated that directed certification should be granted where the ruling below

> affect[s] the basic structure of the proceeding in a pervasive or unusual manner.

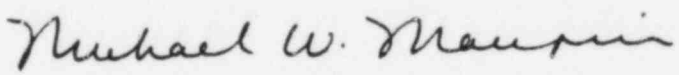
Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977). See also Seabrook, supra, Memorandum and Order at 2, citing Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB 405, 5 NRC 1190, 1192 (1977). This test is met here.

This is not a case where the Board has merely addressed a substantial number of contentions and erred, if at all, on the side of inclusion. The Board's holding will affect future proceedings in this case in a fundamental way. Every issue added to the proceeding as a result of this decision will cause the Board to reexamine activities that are already authorized by licenses, approvals or regulations other than the license amendment that is the subject of this proceeding. On the face of it, therefore, the decision, absent reversal, will affect the basic structure of the proceeding in an "unusual" manner. Put another way, a

substantial portion of the resources to be invested in this proceeding by the Board, the Commission and the parties will be directed at activities that NRC has already approved. Indeed, given the fact that the contentions raised by the County do not deal at all with receipt and storage but only with transshipment, and in light of the probability that Table S-4 will govern the environmental implications of transshipment[10], it is fair to conclude that the great majority of the proceeding--perhaps the entire proceeding--will be directed at the health and safety aspects of transportation. We can think of no more unusual or pervasive manner of burdening a proceeding than to dominate it entirely with a review of activities that Vepco is already licensed to carry out.

Respectfully submitted,

VIRGINIA ELECTRIC AND POWER COMPANY



By: /s/ Michael W. Maupin
Michael W. Maupin, Counsel

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Dated: August 5, 1983

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[10]The Board has not yet decided this point. It has reserved judgment on the scope of the environmental aspect of the proceeding until the EIA is completed.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served Applicant's Motion for Directed Certification upon each of the persons named below by depositing a copy in the United States mail, properly stamped and addressed to him at the address set out with his name:

Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Chief Docketing and
Service Section

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Michael W. Maupin

By: /s/ Michael W. Maupin
Michael W. Maupin, Counsel
for Virginia Electric and
Power Company

Dated: August 5, 1983

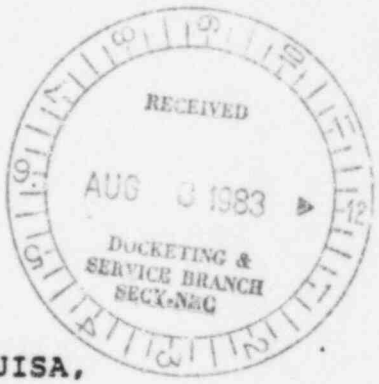
Attachment A

1/17/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	Docket Nos. 50-338/339-OLA-1
	)	
	)	
(North Anna Power Station, Units 1 and 2)	)	
	)	

(Proposed Amendment to Operating License to Allow Receipt and Storage of 500 Spent Fuel Assemblies from Surry Power Station, Units 1 and 2)



CONTENTIONS OF INTERVENORS COUNTY OF LOUISA, VIRGINIA AND THE BOARD OF SUPERVISORS OF THE COUNTY OF LOUISA

Intervenors County of Louisa, Virginia and the Board of Supervisors of the County of Louisa ("Louisa County" or "the County") make the following specific contentions with regard to a license amendment proposed by Virginia Electric and Power Company ("Vepco" or "the applicant") to permit the receipt and storage of 500 spent fuel assemblies from Surry Nuclear Power Station Units No. 1 and 2 for storage in the spent fuel pool at North Anna Nuclear Power Station Units No. 1 and 2. Because the application to receive and store Surry fuel at North Anna necessarily involves the transshipment of spent fuel from Surry to North Anna, the County's contentions regarding the transshipment element of Vepco's plans will also be set forth herein.

I. Need for Proposed Action

The applicant has not established a need for the proposed action.

The Council on Environmental Quality regulations require all federal agencies, in considering a proposed action, to determine whether there is a "need for the proposal."[1/] These regulations are binding on all agencies,[2/] including the Nuclear Regulatory Commission ("NRC" or "the Commission"). In response to this requirement, Vepco asserts that it needs to store Surry fuel at North Anna because otherwise the Surry station will lose full core discharge capability in 1984. Vepco also states that Surry will lose the ability to refuel in 1987, but ties its request for immediate action to its asserted loss-of-full-core-reserve date of 1984. The Nuclear Regulatory Commission does not require utilities to maintain a full core reserve, Duke Power Company, 12 NRC 459, 515 (1980); nor does Vepco allege that full core reserve has any safety implications. Thus, loss of full core reserve does not establish a need for the proposed action. Moreover, other

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1/ 40 C.F.R. § 1508.9(b) (1982).

2/ Andrus v. Sierra Club, 442 U.S. 347, 358 (1979); 40 C.F.R. § 1500.3 (1982).

Vepco documents,[3] as well as the Department of Energy-commissioned Johnson Report,[4] place Surry's loss of full core reserve in 1985, thus casting doubt on the asserted 1984 deadline.

Perhaps more important, Vepco's application does not state the assumptions used to calculate either the 1984 or the 1987 dates. Yet it is clear that variations in factors such as the demand for electrical power, the operating capacity at Surry, and the burnup period of the fuel used at Surry, could have a significant impact on the rate at which spent fuel is discharged from Surry and thus on the need for additional spent fuel storage.

Indeed, there is evidence that supports the conclusion that Surry need not be operated at maximum capacity. Vepco is currently in the process of selling to the Old Dominion Electrical Cooperative ("ODEC") 25 percent of North Anna 2 and 12.5 percent of the North Anna Power Station's common facilities,[5] a move that suggests that Vepco may have overbuilt its baseload capacity and may not need to continue to operate Surry at the same capacity level as has been the

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3/ Interim Storage of Spent Nuclear Fuel: Vepco's Solution, at 3 (Virginia Electric and Power Company, Feb. 1982) [hereinafter Interim Storage].

4/ A Preliminary Assessment of Alternative Dry Storage Methods For The Storage of Commercial Spent Nuclear Fuel, at 3-4, JAI-180 (DOE/ET/47929-1(UC-85)) Nov. 1981 [hereinafter Johnson Report].

5/ 1981 Annual Report of Virginia Electric and Power Company at 2-3, 12-14.

case in the past. Operating at a reduced power level, of course, would reduce the rate at which fuel would be required to be discharged and thus extend, in terms of years, Surry's storage capacity.

Given the Commission's statutory obligations under NEPA and the AEC to minimize adverse environmental effects[6/] and to safeguard the public against radiation hazards to health and safety, the NRC should not embark on a proceeding that could result in substantially increased handling of spent fuel, and thus increased environmental and health and safety risks, unless the need for such a proceeding has been clearly shown. Vepco has not shown such a need here.

II. Consolidation

The proposed action is integrally related to the applicant's other proposed actions now before the Commission.[7/] Therefore, the three elements of the applicant's plan -- namely, receipt and storage of Surry spent fuel at North

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6/ Public Service Company v. U.S. NRC, 582 F.2d 77, 81, 85-86 (1st Cir.), cert. denied, 439 U.S. 1046 (1978); Calvert Cliffs Coordinating Committee, Inc., v. U.S. AEC, 449 F.2d 1109, 1128 D.C. Cir. 1971),

7/ Vepco concedes the interdependence of the plans to receive and store Surry fuel at North Anna and to expand the Northa Anna pool. "Storage of Surry spent fuel assemblies at North Anna would, of course, hasten the day when the North Anna pool would be filled. Thus, Vepco has also applied to NRC for a license amendment authorizing the installation of neutron-absorbing racks at North Anna Units 1 and 2." (Applicant's Answer to Motion of Intervenor Louisa County to Stay Proceedings. Affidavit of Marvin L. Smith at ¶ 5 [hereinafter Smith Affidavit]).

Anna, expansion of the North Anna spent fuel pool and transshipment of Surry fuel to North Anna -- should be considered in consolidated proceedings to ensure that the cumulative environmental, health and safety, and common defense and security impacts are properly addressed.

As support for this contention, Louisa County notes that a license to store Surry fuel at North Anna is insignificant without an accompanying Commission approval to transship the spent fuel. Similarly, storage of Surry fuel at North Anna, absent expansion of the North Anna pool, would merely shift the locus of the storage capacity insufficiency from Surry to North Anna. The current capacity of the North Anna pool is 966 fuel assemblies; with 237 assemblies already stored there as of August 1982, the addition of 500 Surry fuel assemblies would leave little space for fuel discharged from North Anna's reactors, thus causing North Anna to lose full core reserve before the currently projected date of 1989 and possibly foreshortening North Anna's operating life.

Moreover, the courts have consistently held that, even apart from any agency responsibility to prepare an environmental impact statement, "NEPA mandates comprehensive consideration of the effects of all federal actions. 42 U.S.C. § 4332(a). To permit noncomprehensive consideration of a project divisible into smaller parts . . . would provide a clear loophole in NEPA." City of Rochester v.

United States Postal Service, 541 F.2d 967 (2d Cir. 1976). Thus, in compliance with NEPA, the proceedings must be consolidated.

III. Scope of Environmental Inquiry Required

A. The proposed action, viewed either alone or in conjunction with the other integral elements of Vepco's plan (i.e., transshipment and expansion of the North Anna pool), is "a major Federal action significantly affecting the quality of the human environment," and therefore the Commission must prepare an environmental impact statement in accordance with the provisions of 42 U.S.C. § 4332(C).

As the Council on Environmental Quality (CEQ) regulations make clear, "[s]ignificance cannot be avoided by terming an action temporary or breaking it down into small component parts." 40 C.F.R. § 1508.27 (1982). Rather the question of significance turns on, inter alia, "whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant

impact on the environment."[8] Id. These regulations are binding on the NRC.[9]

B. Since Vepco's application does not discuss the transshipment component of the overall plan, it is insufficient to form the basis for Commission compliance with NEPA because it fails to consider the environmental impacts of the proposed shipments.

C. Vepco's environmental analysis is insufficient to form the basis for NRC compliance with NEPA (42 U.S.C. § 4332(A)) because it fails to consider how the security measures necessary to ensure that transshipment is carried out safely will affect the lives of citizens living along the transshipment routes -- i.e.,

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8/ See also the CEQ regulations on "connected actions," which state that "[a]ctions are connected if they:"

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actons are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their jurisdiction.

40 C.F.R. § 1508.25(a)(1).

9/ See Andrus v. Sierra Club, 442 U.S. 347, 358 (1979) ("CEQ's interpretation of NEPA is entitled to substantial deference").

whether the need for security, and indeed the transshipment itself, may cause restrictions in human activities. Additionally, there is no discussion of the environmental consequences that will flow to such citizens should an emergency arise during the course of transshipment.

D. Vepco's environmental analysis is insufficient to form the basis for Commission compliance with NEPA (42 U.S.C. § 4332(A)) or 10 C.F.R. § 51.7(b) (1982), which requires consideration of the "probable impacts of the proposed action on the environment"[10/] because Vepco has failed to consider the environmental consequences for Louisa County if (1) no other storage facility is available when North Anna loses full core reserve or when the North Anna pool is filled to capacity or (2) no permanent solution is on-line for handling the spent fuel stored at North Anna at the end of North Anna's operating life.

The dates at which North Anna will lose full core reserve and refueling ability depend on whether the

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10/ See also 40 C.F.R. § 1508.9(b) (1982) which states that an "environmental assessment . . . shall include brief discussions of the need for the proposal, of alternatives as required by Sec. 102(2)(E) [42 U.S.C. § 4332(2)(E)], of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted." (Emphasis added). The CEQ regulations are now binding on all Federal agencies. Andrus v. Sierra Club, 442 U.S. 347, 358 (1979); 40 C.F.R. § 1500.3 (1982).

proposed action is viewed in isolation or in conjunction with expansion of the North Anna pool. The applicant's submittals assert, without supplying any data, that if the pool is expanded and Surry fuel is stored at North Anna, North Anna will lose full core reserve in 1990[11/] and refueling ability in 1993.[12/] Presumably, if the fuel is shipped but the pool is not expanded these dates would be advanced significantly, but Vepco makes no assertions based on this scenario.

Even under the most optimistic projections, the permanent federal repository provided for in the recently-enacted Nuclear Waste Policy Act of 1982 will not be operating until well after 1993.[13/] And now that North Anna 3, along with its storage capacity, has been cancelled, Vepco has no intrasystem back-up to take up the slack in 1993. Thus, NEPA requires the Commission to consider the environmental consequences if additional storage facilities are not available when

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11/ Smith Affidavit at ¶ 5.

12/ Summary of Information In Support of the Storage of Surry Spent Fuel At North Anna Power Station Unit Nos. 1 and 2 at 2 (July 1982) [hereinafter Storage of Surry Fuel Summary].

13/ Vepco estimates that a permanent federal repository will not be in place prior to the mid- to late-1990's. Storage of Surry Fuel Summary at 21.

North Anna loses full core reserve and, later, refueling ability.[14/] 42 U.S.C. § 4332(A).

Similarly, given the uncertainties that have characterized past Federal action on the spent fuel permanent storage question and the current Commission uncertainty whether permanent storage facilities will be in existence at the end of North Anna's operating life, NEPA also requires the Commission to consider the environmental impact that will obtain if no permanent facility is operational when North Anna reaches the end of its life. Potomac Alliance v. U.S. Nuclear Regulatory Commission, 682 F.2d 1030 (D.C. Cir. 1982).

E. Vepco's analysis is insufficient to form the basis for a Commission finding that the proposed action is not a "major federal action significantly affecting the human environment," 42 U.S.C. § 4332(C), because Vepco impermissibly segments the total plan, treating receipt and storage of Surry fuel at North Anna as separate and discrete from the transshipment and North Anna pool expansion elements of the overall plan. "In ascertaining the significance of a major federal action, the project must be assessed with a view to the overall,

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14/ Possible consequences include premature shutdown of the North Anna station and a consequent loss of jobs for County residents and tax revenues to the County.

cumulative impact of the action proposed, related federal action and projects in the area and further actions contemplated." Sierra Club v. Bergland, 451 F. Supp. 120 (D.Miss. 1978).

IV. Alternatives

Vepco's analysis of the available alternatives is insufficient to serve as the basis for NRC compliance with its NEPA obligation "to study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."[15/] 42 U.S.C. §§ 4332(2)(E).

The obligation to consider alternatives arises regardless of whether a proposed action is significant enough to warrant a full-scale environmental impact statement. Rather, it is an independent NEPA requirement that comes into play whenever "the objective of a major federal [action] can be achieved in one of two or more ways that will have differing impacts on the environment." Trinity Episcopal School Corp. v. Romney, 523 F.2d 88, 93 (2d Cir. 1975). Moreover, even if Vepco's analysis of alternatives were exhaustive, the obligation imposed by § 2(E) is the agency's, not the applicant's; it is therefore improper for an agency to rely solely on the evidence submitted by an

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15/ Accord, Township of Lower Alloways Creek v. Public Service Electric & Gas Co., No. 81-2335, slip op. at 13 n. 14 (3d Cir. Aug. 27, 1982); Aertsen v. Landrieu, 637 F.2d 12, 20 (1st Cir. 1980).

applicant as to the feasibility of other alternatives. City of New Haven v. Chandler, 446 F. Supp. 925, 934 (D.Conn. 1978).

As support for its alternatives contention, Louisa County notes the following:

A. Vepco rejects the option of increasing Surry's storage capacity because it asserts, without support, that "no additional weight can be allowed in the Surry spent fuel pool."[16/] Vepco, however, fails to address the possibility of installing aluminum racks at Surry, and thereby increasing the total storage capacity at Surry by about 10 percent without exceeding the pool's claimed load capacity.[17/] Nor does Vepco consider the temporary installation of spent fuel racks in Surry's cask laydown area, to be used only in the event a full core discharge is required.[18/]

B. Vepco rejects the option of constructing a new pool at Surry, even though such a pool would meet Surry's storage needs until a federal repository is available, because, it asserts, a new pool would cost $100-125 million and take eight years to design, license and

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16/ Storage of Surry Fuel Summary at 16.

17/ See Attachment A.

18/ See Attachment B.

construct.[19] No data, however, are supplied to support these assertions.[20] The Johnson Report estimates that a new pool could be operating at Surry within seven years, and other internal Vepco documents estimate that a new pool could be available at Surry within six years of project start-up at a cost of $70-98 million in 1982 dollars.[21]

C. Vepco rejects the dry cask option because, it asserts, "design, licensing, and construction of this type of facility would take approximately 3-5 years . . . and because it is less certain to avoid the loss of full core discharge capability at Surry in the fall of 1984."[22] As mentioned earlier,[23] Louisa County questions whether loss of full core reserve, even if Vepco's unsupported assertions about the 1984 date turn out to be accurate, should set the target date for Commission action. Moreover, the Johnson Report

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19/ Id. at 19.

20/ Johnson Report at 7-3.

21/ Current Cost Estimates, Independent Fuel Storage Installation, Surry Power Station - Units 1 and 2 (Vepco Memorandum, Oct. 6, 1982), Attachment 2 [hereinafter Current Cost Estimates]. This document is appended to Louisa County's Contentions as Attachment C.

22/ Storage of Surry Fuel Summary at 18.

23/ See page 2, supra.

estimates that design, licensing, construction and pre-operational procedures associated with dry-cask would be completed within 42 months. Since Vepco has already filed for the necessary Commission approvals for dry-cask (October 8, 1982),[24] this means dry-cask storage could be available at Surry beginning in 1986, well before the Surry pool will be full.[25]

Vepco's "analysis" also fails to note that dry-cask is an onsite solution and thus eliminates the fuel handling and attendant environmental and health and safety risks associated with transshipment. Nor does it consider the cost advantages of dry cask. The Johnson Report, however, concluded that "[s]torage of spent fuel by modular methods (such as casks . . .) where storage capacity need be added only as required, results in the lowest unit costs for storage inasmuch as a minimum initial investment is required; in addition, the risk of installing more capacity than ultimately needed is eliminated."[26]

24/ Vepco filed its initial NRC application for dry-cask on October 8, 1982. (NRC Docket No. 72-2).

25/ Vepco's internal documents also project a 1986 startup date for a dry-cask facility at Surry. Current Cost Estimates, Attachment 1. See Attachment C.

26/ Johnson Report at 3 of Executive Summary.

D. Vepco rejects the alternative of reprocessing because, it asserts -- again, without foundation -- that "under current administration policies" shipment to a foreign reprocessing center "would almost definitely be considered inimical [to the common defense and security] of the United States."[27/] Yet, at least one administration spokesperson, John Marcum of the White House Office of Science and Technology Policy, has indicated that there are "no impediments to U.S. utilities contracting to have spent fuel reprocessed in foreign plants."[28/]

E. Vepco presents no data to support its assertion that an "extended burnup" program would have only "negligible impact" on Surry's near-term fuel storage requirements.[29/] Even if it is true, as Vepco asserts, that Surry will lose full core discharge capability in 1984, only a small increment of additional capacity, if any, is required to meet Surry's storage needs until dry-cask could be available. During the first year that Surry discharges more assemblies than it can store while maintaining full core reserve, the excess number

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27/ Storage of Surry Fuel Summary at 19.

28/ "Bring Back Buy-Back," Nuclear News at 61-62 (October 1982).

29/ Storage of Surry Fuel Summary at 21.

of assemblies will be only 61-65.[30/] It is possible that extended burnup, used alone or in conjunction with one of the other rejected alternatives (e.g., contingent transshipment, operating Surry at a reduced power level), could provide the needed increment.

F. Vepco's assertion that it cannot operate Surry at a reduced power level (and thereby extend the life of the fuel) because to do so would involve "significant economic penalties" is again totally unsupported. As mentioned earlier,[31/] Louisa County has significant doubts about the need for Surry to operate at maximum capacity.

G. Vepco's assertion that it cannot close Surry when the pool is full because replacement power would cost approximately $350 million a year is also unsupported by any data.

H. Vepco has failed to consider installing flotation spent fuel cannisters at Surry and thereby extending Surry's storage capacity by twelve to eighteen years without

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30/ Johnson Report at 3-4; Spent Fuel Disposition Alternatives Study for Vepco (Ebasco, Mar. 1980) at A4-3 [hereinafter Ebasco Report].

31/ See page 3, supra.

having to increase the structural strength of the pool. This Dyna-Canister system, designed by the U.S. Tool and Die Company of Secaucus, New Jersey, was reported in a recent issue of Nuclear News.[32/]

I. "Buy-Time" Alternatives: Although Vepco appears to be committed to a dry-cask installation at Surry, and, as discussed above,[33/] current projections indicate that such a facility could be available in 1986, Vepco has not considered any combination of alternatives to "buy time" for Surry until dry-cask would be on line, such as the following:

1. Give up full core reserve for a limited time, as have other utilities;

2. If Vepco's primary goal is to preserve full core reserve at Surry, install, temporarily, fuel racks in the cask handling area to be used only in the event full core discharge is required. Once the Surry dry-cask facility were operational, the racks could be removed. This option is addressed in a May 1982 Vepco memorandum, which reports that

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32/ "Fuel Pin Consolidation," Nuclear News at 112 (October 1982).

33/ See pages 13-14, supra.

such a temporary installation would provide space for 108 fuel assemblies and extend the time to loss of full core discharge by at least two years; additionally, the memo reports that once before, when high density racks were being installed at Surry, a rack was placed temporarily in the cask handling area;[34/]

3. Install aluminum racks at Surry, and thus provide space for approximately 100 more fuel assemblies without exceeding Surry's claimed weight limits, thus also extending the time until loss of full core discharge capability by at least two years. Assuming for the moment that Vepco's 1984 date for loss of full core reserve is correct, aluminum racks would extend pool capacity to 1986, and by then dry-cask would be operational; and

4. Operate Surry at a reduced capacity for a limited period of time.

34/ Alternatives for Loss of Full Core Discharge, Surry Power Station Unit Nos. 1 and 2 (Vepco Memorandum, May 5, 1982). (Attachment B).

J. Long-Term Alternatives: Vepco has failed adequately to consider alternatives that would permanently resolve its long-term interim storage problems.

"National environmental policy requires a detailed analysis of the long-range environmental costs of proposed action and a thorough study of the available alternatives before any action is taken. Planning and building . . . in a piecemeal fashion threatens to frustrate this policy by allowing a gradual, day-to-day growth without providing an adequate opportunity to assess the overall, long-term environmental effects of that growth." Patterson v. Exon, 415 F. Supp. 1276, 1282 (D.Neb. 1976). Thus, proposed actions must be viewed comprehensively and, further, consideration of environmental factors must begin "at the earliest possible point." Sierra Club v. Bergland, 451 F. Supp. 120 (N.D.Miss. 1978).

Even under the proposed scheme, Vepco will run out of storage space for both Surry and North Anna in 1993, and it is highly unlikely that any permanent federal repository developed under the recently enacted Nuclear Waste Policy Act of 1982 will be on line at that time. In fact, it appears that using the most optimistic assumptions, the repository could not be ready

until the mid to late 1990's.[35/] Thus, it is clear even now that Vepco's plan to store Surry fuel at North Anna is only a stopgap measure postponing the inevitable, and that, even if Vepco's current scheme is approved, Vepco must still develop additional interim storage capacity to bridge the gap between exhaustion of the North Anna pool's capacity and the availability of a federal repository to receive spent fuel. Yet, Vepco attempts to focus only on near-term problems, ignoring or rejecting out of hand alternatives that would provide a comprehensive solution to its interim storage needs.

K. Comprehensive Alternatives: Vepco, by treating the discussed alternatives as mutually exclusive does not consider the advantages of a comprehensive, multi-faceted approach. For example, Vepco could solve both its near- and long-term interim storage needs and continue to operate both Surry and North Anna by:

1. Temporarily installing fuel racks in Surry's cask handling area to bridge the loss-of-full-core-reserve gap (asserted by Vepco to begin in the

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35/ Vepco agrees with this projected timetable. See Storage of Surry Fuel Summary at 21.

fall of 1984) until dry-cask could be available at Surry in 1986, or

2. Temporarily abandoning full core reserve, or

3. Temporarily reducing Surry's capacity, and

4. Vigorously pursuing the dry-cask option at Surry which, by Vepco's own reckoning, could be on line in 1986 and meet all of Surry's storage needs for its entire operating life.

Faced with a proposal such as the instant one, where it is clear that the currently presented solution leaves a gaping hole in the applicant's long-term spent fuel storage needs (i.e., the time between 1993 when the Surry and North Anna pools are completely filled and the late 1990's when the planned federal repository may be operational), and inadequately addresses the short-term picture, it is incumbent upon the Commission to evaluate Vepco's interim storage needs comprehensively. This obligation springs not only from NEPA but also from the Atomic Energy Act, which requires the Commission to take steps to minimize the health and safety risks associated with the commercial use of nuclear power. Thus, the Commission should, at this

early point, attempt to develop an overall plan that minimizes fuel handling (and the attendant environmental and health and safety risks for workers and the public at large) over the entire lifespan of Vepco's nuclear plants.

North Anna 3 was once thought, at least by Vepco, to be the answer to its post-1993 storage needs.[36/] Vepco, however, recently decided to cancel the North Anna 3 project, a decision which clouds the longer-term storage picture. Louisa County urges the Commission to take steps now -- for example, by using its authority to impose conditions on the licenses it grants, Public Service Company v. U.S. NRC, 582 F.2d 77, 81, 85-86 (1st Cir.) cert. denied, 439 U.S. 1046 (1978), -- to require Vepco now to develop a comprehensive solution to its interim storage needs. The aim would be to develop an environmentally-acceptable overall plan to (1) reduce the need for fuel handling and thus minimize the risks of accidents or sabotage and reduce occupational exposure, and (2) ensure that NRC licensing and supervision of commercial nuclear plants is consistent and rational -- in particular, to ensure that a Commission licensing action does not effectively bail out one plant at the expense of another.

36/ Interim Storage at 10-11.

V. Transportation Hazards

A. Vepco's application is insufficient to support a Commission finding that receipt and storage of Surry fuel at North Anna, which necessarily entails transshipment of Surry spent fuel to North Anna, is not inimical to the public health and safety.

1. Vepco has not demonstrated that its transshipment plan will meet the "as low as is reasonably achievable" (ALARA) standard set forth in 10 C.F.R. § 20 (1982) or the other precautionary procedures mandated in 10 C.F.R. § 20 (1982) to protect workers and the public at large from impermissible radiation exposure.

2. Vepco has not demonstrated that it has established a physical protection system which meets the requirements of 10 C.F.R. § 73 (1982).

3. Vepco's application does not indicate that it has made the required arrangements with local law enforcement agencies to ensure that their emergency response capabilities, in the event of an accident and/or sabotage, are sufficient to

protect the public safety and health. 10 C.F.R. § 73.37(b)(6) (1982).

4. Vepco has not demonstrated that the procedures governing shipments from Surry to North Anna will meet the requirements of 10 C.F.R. § 71 (1982).

   a. Vepco does not specify the type of license being requested under § 71.

   b. Vepco does not meet the minimum requirements of 10 C.F.R. § 71.51 (1982) to provide a description of a quality assurance program for the proposed transshipment, nor does Vepco discuss the procedures which will be utilized to meet the standards delineated in Appendix E of § 71.

   c. Vepco does not fulfill the requirement of 10 C.F.R. § 71.21 (1982) that applications for licenses or license amendments "shall include, for each proposed packaging design and method of transport:"

      (1) a package description as required by § 71.22;

(2) a package evaluation as required by § 71.23;

(3) an identification of the proposed program of quality assurance as required by § 71.24;

(4) in the case of fissile material, an identification of the proposed fissile class.

d. There are no computations or computer simulations to indicate that criticality will not be reached during shipment (10 C.F.R. § 71.33 (1982)).

e. Vepco fails to identify the type of package and mode of transport; therefore it is impossible to evaluate the effect of the transport environment on the nuclear safety of the packages (10 C.F.R. § 71.37 (1982)).

f. Vepco fails to identify the type of package and mode of transport; therefore it is impossible to assess whether the spent fuel shipments will meet the standards for hypothetical accident conditions. (10 C.F.R. § 71.36 (1982)).

B. Since Vepco's application contains no information about the environmental impacts of the proposed shipments, it is insufficient to form the basis for Commission compliance with its NEPA responsibilities or with Part 51 of the NRC regulations.

C. Transshipment of spent fuel from one plant owned by a utility to another plant owned by the same utility is a relatively unusual event. Most spent fuel shipments have been from one licensee to another licensee (utility to spent fuel processor) and therefore have had the advantage of reviews by separate operating and quality organizational components. The Surry to North Anna shipment will be totally under the jurisdiction of Vepco and therefore should be subjected to independent review to assure that appropriate procedures are in place.

VI. Louisa County Spent Fuel Ordinance

The proposed action should not be approved because the proposed action would violate the Louisa County Spent Fuel Ordinance, which provides that:

> It shall be unlawful for any person, partnership, corporation or any other entity to store or maintain in Louisa County any spent nuclear fuel or any other waste radioactive

materials of similar qualities, except such materials as may result from nuclear fuel being used in Louisa County.

Anyone violating or causing anyone to violate this ordinance shall be fined not more than $1,000.00; and each day that any such violation continues shall be a separate offense.

If any phrase, clause, sentence, part or portion of this ordinance shall be declared unconstitutional or invalid by any valid judgment or decree of a Court of competent jursdiction, such unconstitutionality or invalidity shall not effect any of the remaining phrases, clauses, sentences, portions or parts of this ordinance.

Respectfully submitted,

January 17, 1983

J. Marshall Coleman
Christopher H. Buckley, Jr.
Cynthia A. Lewis
Robert Brager
Virginia S. Albrecht
Beveridge & Diamond, P.C.
1333 New Hampshire Avenue, N.W.
Washington, D.C. 20036
(202) 828-0200

Attorneys for Intervenor

Of Counsel:

Richard W. Arnold Jr.
County Attorney
Courthouse Square
Main Street
Louisa, Virginia 23093
(703) 967-1650

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing Contentions of Intervenors County of Louisa, Virginia and the Board of Supervisors of the County of Louisa upon each of the persons named below by depositing a copy in the United States mail, properly stamped and addressed to him at the address set out with his name:

Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Chief, Docketing and Service Section

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

Dr. Jerry Kline
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January 17, 1983

J. Marshall Coleman

M.C. Smith - See your review let's go see him first. Fred Akstulewicz Please review & advise

Nollerus Engineering
'0 CURTNER AVE., SUITE F
N JOSE, CALIFORNIA 95124
..ONE (408) 371-3342

April 2, 1982

NOTED MAY 13 1982 G.R.F.

Mr. Ronald H. Leasburg
Vice President-Nuclear Operations
Virginia Electric & Power Company
P.O. Box 26666
Richmond, VA 23261

SUBJECT: Spent Fuel Storage at Surry

Dear Mr. Leasburg:

I am sending this letter in response to our telephone conversation of last week. As I see it, VEPCO has three reasonable alternatives for spent fuel storage: increase pool storage capacity, tranship to North Anna, and on-site non-pool storage.

I realize that Stone and Webster will not allow any increase in fuel pool loads. However, it may be possible to increase the storage capacity without increasing the loads. I do not know the details of the Surry fuel rack design, but if the present racks are stainless steel without nuetron absorber, it would be possible to replace them with [redacted] racks with neutron absorber and substantially reduce the fuel rack weight. This change alone should allow storage of about ten percent more fuel in the existing pool. A side benefit of this approach is that the new racks could be designed for a higher fuel enrichment, which may be advantageous when considering extended fuel cycles. I assume that the fuel pool structural analysis has taken advantage of the concrete aging strength increase, used bouyant weights of fuel and fuel racks, minimized hydrodynamic mass effects and similar means of maximizing strength and minimizing loads. However, there may still be some other means of increasing storage capability.

Although the increase in pool storage capacity is somewhat limited, it deserves all possible consideration because of its benefits; reduced licensing problems, less fuel handling, no new structures or transportation requirements and so on.

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In relation to this approach, Mollerus Engineering could provide a detailed evaluation of the potential storage capacity increase, work with S & W to ensure that the pool structural capacity is not exceeded and provide a report including recommended approaches, licensing concerns, cost and schedule estimates and recommended suppliers. This work would require about five weeks, and ME would perform the work on a time and materials basis for approximately $8,000.00, including one trip to Virginia.

Transhipment of Surry fuel to North Anna for storage would provide temporary relief of the Surry storage problem. However, licensing of this alternative could be a long and difficult process. Some of the areas in which ME could be of assistance to VEPCo are: evaluation of alternatives for the license request, determination of the availability of licensed equipment (particularly shipping casks), review of the North Anna fuel handling equipment for compatibility with Surry fuel, and review of North Anna storage racks for mechanical, structural and nuclear compatibility with Surry fuel.

If you are interested in ME providing services related to any or all of the above areas, I will provide cost and schedule estimates based on whatever scope of work you desire.

As we discussed on the telephone, the most reasonable approach to on-site non-pool storage appears to be storage in casks. There are several companies interested in supplying these casks. To my knowledge the most advanced is Brooks & Perkins. B&P received a contract from DOE in January 1982 to supply one of these casks. The cask to be delivered to DOE will be for BWR fuel, but B&P will submit a topical report to the NRC to cover both BWR and PWR fuel storage. The projected schedule for this is:

Submit topical report to NRC	July 1982
Complete cask manufacture	December 1982
NRC review complete	January 1983

The cask will be delivered either to Barnwell or TVA for testing.

Mollerus Engineering can provide assistance to VEPCo in relation to this type of storage as follows: preparation of bid specifications, technical and quality assurance qualification of vendors, evaluation of bids, determination of requirements for the cask storage facility, independent review of cask and/or facility design and analysis, licensing assistance and project management. As with the transhipment alternative, I will gladly prepare a cost and schedule estimate for a specific scope.

Both Fred Mollerus and I are experienced with design, analysis, fabrication and licensing of spent fuel storage modifications. Both Fred and I have testified at NRC hearings on spent fuel storage modifications.

As stated in our brochure on fuel storage which Bob Allen gave to you, ME is associated with Arne P. Olson Corporation for nuclear and shielding analysis. Dr. Olson has extensive experience in fuel storage modifications and has also testified as an expert witness on this subject at NRC hearings.

In the area of structural analysis, Mr. Glenn Brockmeier has over 35 years of experience, including spent fuel pool structual analysis. Mr. Brockmeier would provide the structural analysis input to these projects.

I certainly believe that ME can be of assistance to VEPCo on this work. I will call you in about one week to discuss this further.

Sincerely,

Mollerus Engineering

James D. Gilcrest

JDG:jr

No. 97024020 CFA Spent Fuel Storage

MEMORANDUM

Assigned to Faith Gadzo

TO M. L. Smith

Richmond, Virginia

FROM M. L. Bowling, Jr.

May 5, 1982

ALTERNATIVES FOR LOSS OF FULL CORE DISCHARGE
SURRY POWER STATION UNIT NOS. 1 AND 2

Loss of Full Core Discharge Capability is presently estimated to occur in the fourth quarter of 1984 at Surry Power Station Unit Nos. 1 and 2. To postpone this loss of full core discharge there are options which may be available.

The one major option which could be utilized on a strictly "temporary basis" would be to utilize up to 3 spent fuel racks which are presently in the spent fuel pool at North Anna. The spent fuel racks could be placed in the Surry spent fuel pool in the cask laydown area. This would provide additional storage for 108 spent fuel assemblies and extend the time to loss of full core discharge at Surry by at least 2 years. In order to do this, a temporary stand for the fuel racks would have to be installed for the racks to be placed on as there is a step in the floor of the spent fuel cask laydown area. The stand would simply consist of 2 or 3 I-beams and some stainless steel plate. The weight associated with the stand, the fuel racks, and fuel assemblies could be accommodated as the total weight would be less than a 125 ton spent fuel shipping cask and it would be spread out over a greater surface area of the floor (see attachment 1, calculation of weights).

From a licensing standpoint, Vepco would have to request the NRC to provide emergency permission to do this, however, from a technical standpoint there should be no problem. This was actually done with one spent fuel rack during the installation of the Surry High Density Spent Fuel Racks.

From a seismic/structural standpoint there would be no problem as the North Anna fuel racks were designed to North Anna siesmic criteria which envelopes the Surry criteria. From a thermal-hydraulic and criticality standpoint there would be no problem as the North Anna spent fuel racks were designed to accommodate either North Anna or Surry spent fuel.

In order to temporarily relocate the 3 spent fuel racks from North Anna to Surry, should the need arise, the racks would be removed from the pool and decontaminated (hydrolased). They would then be wrapped in plastic and possibly be crated and then be shipped by truck to Surry. Once at Surry they could then be placed in the cask laydown.

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Other alternatives include storage in dry casks (NPE is currently reviewing this alternative as part of the dry cask ISFSI project) and storage in transportation casks.

Please advise Mr. H. S. McKay if you require any further information on this matter.

Martin L Bowling

M. L. Bowling, Jr.

HSM:cbs

cc: W. C. Spencer
J. M. Davis
E. M. Alligood
R. W. Calder
L. M. Girvin
C. P. Sanger
G. H. Flowers
H. S. McKay
PSE&C Records Management NM-01, NP-51.2

38434

ATTACHMENT I

108 assemblies x 1700 = 186,300 lbs. or ~ 92 tons

Weight of Fuel Racks = 15,000 lbs. each

or 45,000 lbs. for 3 racks

22.5 tons

Stand - < 15,000 lbs

Total Weight to Pool 122 tons

< 125 ton shipping cask

36430

1 copy
MD

MEMORANDUM

TO Mr. M. L. Smith — Richmond, Virginia

FROM M. L. Bowling, Jr. — October 6, 1982

CURRENT COST ESTIMATES
INDEPENDENT SPENT FUEL STORAGE INSTALLATION
SURRY POWER STATION-UNITS 1 AND 2

Attached for your information are best-estimate lifetime total cost estimates for the Dry Cask and Wet Pool Storage facilities being considered for interim storage of the Surry spent fuel. The estimates provide projected cash flows associated with each storage option as well as assumptions forming the basis of the estimates.

The attached information is the same as that which was reviewed with you in the August 23, 1982, meeting as preliminary. The purpose of the information is to provide a basis for estimates of total lifetime costs. Accordingly, the estimated cash flows for each year may be subject to adjustment without significantly affecting total estimated costs, as the actual timing or scope of specific project activities changes from the estimate.

Tables 1.2 and 2.2 summarize the estimated costs of the Dry Cask and Wet Pool facilities respectively. The estimated cost of the Dry Cask facility in 1982 unescalated dollars is between 58 and 75 million. The estimated cost of the Wet Pool facility in 1982 unescalated dollars is between 70 and 98 million. These estimates are generally consistent with our earlier estimates and those provided in Mr. R. H. Leasburg's memorandum of March 24, 1982 (60-90 million dollars for Dry Cask and 100-125 million dollars for Wet Pool). The difference reflects our contracting experience, vendor discussions, and more detailed scope definition.

We intend to update the estimate after approval of the 1983 budget. At that time, we will know authorized funding for 1983 and can plan near-term project activities accordingly. Please note that the attachment assumes commencement of Wet Pool final engineering in 1983. Your current authorization to PSE&C, and our 1983 budget request, do not provide for final engineering. Other known changes, which will be included in the update, pertain (1) to the timing and amounts of license fees and (2) to engineering services to be provided by cask vendors. Neither of these items will have a significant effect on the estimated lifetime costs.

We will advise you promptly of any significant deviations from these estimates.

If you should have any questions concerning these estimates, please feel free to contact me.

Martin L Bowling

M. L. Bowling, Jr.

GHF/JRA/nh

Attachment

cc: Mr. S. C. Brown, Jr., w/attachment
Mr. W. C. Spencer , w/attachment
Mr. A. L. Parrish, III , w/attachment
Mr. J. M. Davis , w/attachment
Mr. G. H. Flowers w/attachment
Mr. J. R. Adams w/attachment
PSE&C Records Management NP-50 w/attachment

ATTACHMENT 1

SUMMARY OF COSTS

DRY CASK INDEPENDENT SPENT FUEL STORAGE INSTALLATION

SURRY POWER STATION

PSE&CS
AUGUST, 1982

166760

brh/2942/1

TABLE 1.1
SUMMARY OF ASSUMPTIONS
FOR COST ESTIMATE
DRY CASK INDEPENDENT SPENT FUEL STORAGE INSTALLATION
SURRY POWER STATION - UNITS 1 AND 2

1. Total storage capacity provided - up to 2000 assemblies
2. All costs projected in 1982 dollars without escalation
3. Project Start Date - April, 1982
4. Projected Startup Date - 1986
5. Facility Life - through 2008
6. Other assumptions are included with the individual tables

166761

08/82

TABLE 1.2
COST SUMMARY
DRY CASK STORAGE FACILITY
1982 $ X 1000

License Application Preparation	$ 328
Design Engineering (A/E)	265
Licensing Support (A/E)	429
Vepco Costs Excluding Construction	1645
Construction	2350
Storage Cask Purchases	51000 - 68000
Operation & Maintenance	1454
Decommissioning	153
TOTAL LIFE OF FACILITY COSTS (Less Contingency)	57624
Contingency	
Contingency at 15% for Licensing support, Vepco Engineering, Construction, O&M	882
TOTAL RANGE	$58506 - 75506

Notes:

1. Life of facility is through the year 2008.
2. If consolidated fuel is stored in the casks the total costs would be at least 25% lower than those shown above.

166762

08/82

brh/2942/3

TABLE 1.3
CASH FLOW (000)
DRY CASK LICENSE APPLICATION PREPARATION
BECHTEL POWER CORPORATION

1982	
April	$ 12
May	32
June	72
July	100
August	75
September	37
TOTAL	$328

The above costs are for the preparation of all documents to be submitted for the application for dry cask storage. Expenditures through June are actual amounts. Expenditures for July through September are estimates based on inputs from Bechtel.

166763

08/82

TABLE 1.4
CASH FLOW (000)
DRY CASK FACILITY ENGINEERING
BECHTEL

1982		
	April	$ 23
	May	50
	June	66
	July	50
	August	30
	September	25
1983		21
	TOTAL	$265

The above costs are based on a firm price contract with Bechtel (Task Item #4) for all work required for the "No Building Option".

166764

08/82

TABLE 1.5
CASH FLOW (000)
DRY CASK LICENSING SUPPORT
BECHTEL

1982	$ 33
1983	132
1984	132
1985	132
TOTAL	$429

The above costs are based on Bechtel providing licensing support throughout the licensing process depicted on the project schedule. Licensing process is assumed to be in accordance with the P. L. Grey Report. Bechtel assistance is estimated to be 200 MH/month for 1983-1985.

166765

08/82

TABLE 1.6
CASH FLOW (000)
VEPCO EXCLUDING CONSTRUCTION COSTS

	PSE&C	OTHER (Vepco)	LEGAL	TOTAL
1982	$ 141	$370*	$ 50	$ 561
1983	144	72	50	266
1984	144	72	50	266
1985	144	72	50	266
1986	72	.36	50	158
1993	36	18	10	64
2001	36	18	10	64
TOTAL	$ 717	$658	$270	$1645

The above costs are estimated based on moderate Vepco involvement in predominately Mode II operation. 1982 costs are 60% of the current ISFSI estimate which also includes engineering for the Wet Pool option, based on pursuing dry storage as the prime alternative. Costs for 1983 through 1986 assume only dry storage will be pursued. The costs are based on PSE&C expenditures of $12 k/mo ($6k NPE, $3k ES, $3k Overhead), other Vepco department expenditures of $6k/mo (1/2 of PSE&C) and $50k/yr paid to Hunton & Williams for legal support during licensing and construction. Costs for 1993 and 2001 are for engineering support of modular expansions.

*1982 costs include $300,000 for license application fee.

166766

08/82

brh/2942/7

TABLE 1.7
CASH FLOW (000)
FACILITY CONSTRUCTION COSTS

1985	$ 425
1986	425
1993	750
2001	750
TOTAL	$2350

The above costs are based on constructing storage slabs as required. Initial construction (1985 & 1986) will consist of clearing the entire site, installing any security systems and constructing the first storage facility. Initial construction is scheduled (optimistically) to begin before the license is issued. Costs are based on estimate made by Bechtel dated March 2, 1982. 1985 costs include purchase of cask transport equipment.

TABLE 1.8
DRY STORAGE CASK PURCHASES

	Number of Casks	Cost/$600k/ea	Cost/Cash Flow (000)/$800k/ea
1985	4	$ 2400	$ 3200
86	3	1800	2400
87	5	3000	4000
88	2	1200	1600
89	3	1800	2400
1990	5	3000	4000
91	2	1200	1600
92	3	1800	2400
93	5	3000	4000
94	2	1200	1600
1995	3	1800	2400
96	5	3000	4000
97	2	1200	1600
98	3	1800	2400
99	5	3000	4000
2000	2	1200	1600
01	3	1800	2400
02	5	3000	4000
03	2	1200	1600
04	3	1800	2400
2005	5	3000	4000
06	2	1200	1600
07	5	3000	4000
08	6	3600	4800
TOTAL	85	$51000	$68000

The above costs are for 24-element storage casks. The current cost estimates for casks range from $600k to $800k each. The required quantities are based on the fuel buildup schedule (attached). Casks purchased on 1985 and 1986 would be used for early storage of spent fuel prior to construction of the facility, subject to NRC approval, and are considered initial capital costs.

166768

08/82

brh/2942/9

TABLE 1.9
CASH FLOW (000)
DRY CASK FACILITY OPERATING & MAINTENANCE COSTS

1986	$ 57
87	64
88	57
89	60
1990	64
91	57
92	60
93	64
94	57
1995	60
96	64
97	57
98	60
99	64
2000	57
01	60
02	64
03	57
04	60
2005	64
06	57
07	60
08	64
09	66
TOTAL	$1454

These operating and maintenance costs are based on the Bechtel preliminary engineering study dated March 1982. The costs include rental of cask unloading crane and routine maintenance of monitoring and lighting systems.

TABLE 1.10
CASH FLOW (000)
DRY CASK FACILITY DECOMMISSIONING

2008	$ 51
2009	51
2010	51
TOTAL	$153

The above costs include dismantling the monitoring and electrical systems and checking the slab and surrounding area for contamination. Costs do not include disposal of fuel assemblies and casks.

ATTACHMENT 2

SUMMARY OF COSTS

WET POOL INDEPENDENT SPENT FUEL STORAGE INSTALLATION

SURRY POWER STATION

PSE&CS
AUGUST, 1982

166771

TABLE 2.1
SUMMARY OF ASSUMPTIONS
FOR COST ESTIMATE
WET POOL INDEPENDENT SPENT FUEL STORAGE INSTALLATION
SURRY POWER STATION - UNITS 1 AND 2

1. Total storage capacity provided - 2100 assemblies
2. All costs projected in 1982 dollars without escalation
3. Project Start Date - April, 1982
4. Projected Startup Date - 1988
5. Facility Life - through 2008
6. Other assumptions are included with the individual tables

TABLE 2.2
SUMMARY OF COSTS
WET POOL INDEPENDENT SPENT FUEL STORAGE INSTALLATION
SURRY POWER STATION - UNITS 1 AND 2
1982 $ X 1000

License Application and Conceptual Engineering	$ 465
Final Engineering	934
Construction Costs	27000 - 54000
Vepco Costs Excluding Construction	3075
Modular Expansion Costs	3388
Operating and Maintenance Costs	16262
Decommissioning	11250
TOTAL LIFE OF FACILITY COSTS (Less Contingency)	63134
Contingency	
Based on 15% of Final Engineering Field Engineering, Vepco Engineering, Construction Modular Expansion Costs and O & M Costs	7713
TOTAL RANGE	$70847 - 97847

Note:

Life of facility is through the year 2008.

TABLE 2.9
CASH FLOW (000)
WET POOL OPERATING AND MAINTENANCE COSTS

1988		$ 680
89		742
1990		742
91		742
92		742
93		742
94		742
1995		742
96		742
97		742
98		742
99		742
2000		742
01		742
02		742
03		742
04		742
2005		742
06		742
07		742
08		742
09		742
	TOTAL	$16262

These operating and maintenance costs are based on Table B of the Stone & Webster cost estimate dated March 1982. Costs for 1988 are for 11 months of operation per schedule.

TABLE 2.10
CASH FLOW (000)
DECOMMISSIONING COSTS

2009	$ 3750
2010	3750
2011	3750
TOTAL	$11250

Decommissioning costs are estimated to be approximately 40% of the total construction costs including modular expansions.

TABLE 2.9
CASH FLOW (000)
WET POOL OPERATING AND MAINTENANCE COSTS

1988	$ 680
89	742
1990	742
91	742
92	742
93	742
94	742
1995	742
96	742
97	742
98	742
99	742
2000	742
01	742
02	742
03	742
04	742
2005	742
06	742
07	742
08	742
09	742
TOTAL	$16262

These operating and maintenance costs are based on Table B of the Stone & Webster cost estimate dated March 1982. Costs for 1988 are for 11 months of operation per schedule.

TABLE 2.10
CASH FLOW (000)
DECOMMISSIONING COSTS

2009	$ 3750
2010	3750
2011	3750
TOTAL	$11250

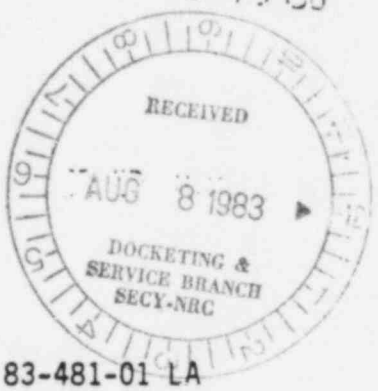
Decommissioning costs are estimated to be approximately 40% of the total construction costs including modular expansions.

Attachment B

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Sheldon J. Wolfe, Chairman
Dr. Jerry R. Kline
Dr. George A. Ferguson



In the Matter of	ASLB Docket No. 83-481-01 LA (NRC Docket No. 50-338 OLA-1 No. 50-339 OLA-1)
VIRGINIA ELECTRIC AND POWER COMPANY	
(North Anna Power Station, Units 1 & 2)	ASLB Docket No. 83-482-02 LA (NRC Docket No. 50-338 OLA-2 No. 50-339 OLA-2)

June 10, 1983

MEMORANDUM
(Re Two Issues Briefed By Order Of The Board)

In the Order of February 18, 1983 (unpublished), the Board directed that two issues be briefed by Applicant, Staff, County of Louisa and the Board of Supervisors of the County of Louisa, Virginia (Louisa County), and by Concerned Citizens of Louisa County (Concerned Citizens).[1] These issues are discussed below.

I. Whether the Board may consider the health, safety and environmental impacts of the transshipment of spent fuel from Surry to North Anna.

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1 Initial briefs were filed on April 1, 1983. Reply briefs were filed by all but Concerned Citizens on April 15, 1983.

A. Health and Safety Impacts

The Staff, Applicant and Concerned Citizens are agreed that the Board may not consider the health and safety impacts of the transport of spent fuel from Surry Units 1 and 2 to North Anna Units 1 and 2 because VEPCO already has authority to transship spent fuel from Surry to a facility authorized to receive it. They cite 10 C.F.R. § 70.42 which provides that any Part 70 licensee may transfer special nuclear material to any person authorized to receive it. They also cite the Surry operating licenses (Nos. DPR-32 and DPR-37, pars. 2.B and 2.C) which have authorized VEPCO, pursuant to Parts 30 and 70, to possess any byproduct and special nuclear material which may be produced in connection with the operation of the facilities, and they conclude that VEPCO has a general license to deliver spent fuel to a carrier for transport provided it uses a spent fuel cask which has been issued a Certificate of Compliance by the NRC and complies with other packaging requirements of § 71.12. Moreover, they rely upon the fact that, pursuant to § 73.37(b)(7), on July 28, 1982, VEPCO obtained route approvals from the NRC for the transshipment of spent fuel from Surry to North Anna.

Further, we note that Staff and Applicant agree that this Board is not authorized to consider the health and safety impacts of the transportation of the Surry spent fuel to North Anna because we must respect the limiting terms of notices of hearing published by the Commission. Northern Indiana Public Service Company (Bailly Generating Station, Nuclear 1), ALAB-619, 12 NRC 558, 565 (1980). The two Notices of Proposed Issuance of Amendment to Facility Operating Licenses issued on September 22, 1982 (47 Fed. Reg. 41892 and 41893) authorize the Board

in proceeding OLA-1 to consider an amendment to the North Anna operating license to permit the "receipt and storage" of 500 spent fuel assemblies from Surry, and, in proceeding OLA-2, to consider "the expansion of fuel storage capacity for North Anna Units 1 and 2." They urge that a licensing board can neither enlarge nor contract the jurisdiction conferred by the Commission. Consumers Power Company (Midland Plant, Units 1 and 2), ALAB-235, 8 AEC 645, 647 (1974).

Applicant also argues that the health and safety impacts of transshipment to Barnwell, South Carolina, were considered in the two Final Environmental Statements when Surry was licensed to operate and should not now be reconsidered.

While implicitly conceding that the two notices do not expressly clothe this Board with the authority to consider the health and safety impacts of the transportation of spent fuel from Surry to North Anna, Louisa County urges, among other things, that this Board has jurisdiction over health and safety issues fairly raised by the application for an amendment to the North Anna operating license to permit the "receipt and storage" of 500 spent fuel assemblies from Surry. In support of its position, Louisa County cites Consumers Power Company (Big Rock Point Nuclear Plant), ALAB-636, 13 NRC 312, 324 n.22 (1981). Therein, the Appeal Board rejected the argument that the notice of hearing foreclosed consideration of anything other than the proposed modification of the spent fuel pool. In substance the Appeal Board held that a hearing may encompass environmental as well as health and safety issues "fairly raised" by an application to amend an operating license. We deem that health and safety impacts of the transportation of the spent fuel assemblies are issues fairly raised by the notice of hearing

in proceeding OLA-1. Further, we do not understand that Louisa County is requesting that we review the merits of the Surry operating license amendments and, at least in part, modify, suspend or revoke these amendments - if that was its purpose, its recourse would be to file a request pursuant to 10 C.F.R. § 2.206. Instead, we understand that Louisa County requests that we consider the health and safety impacts of the transport of spent fuel from Surry to North Anna, which have never been considered before with North Anna being the destination, and that, thereafter, we should either deny the proposed operating license amendment to receive and store at North Anna spent fuel assemblies from Surry or authorize the issuance of the amendment subject to conditions with respect to transportation of spent fuel. Finally, Louisa County points out, inter alia, that the two Surry Final Environmental Statements issued in 1972 did not consider the health and safety impacts of the now proposed transshipment of spent fuel to North Anna.

We find that Louisa County's arguments are well-taken and conclude that we may consider the health and safety impacts of the transport of spent fuel from Surry to North Anna. We trust that the Staff's issuance of the Safety Evaluation Report in August, 1983, will include a consideration of the health and safety impacts of the transshipment of spent fuel from Surry to North Anna. (If more time is needed to prepare the SER, the Staff is requested to furnish its best estimate as to the date that document will be issued.)

B. Environmental Impacts

The Applicant, Staff, Louisa County and Concerned Citizens agree that, pursuant to the National Environmental Policy Act of 1969

(NEPA), 42 U.S.C. §§ 4321 et seq., this Board has jurisdiction to consider the reasonably foreseeable environmental impacts of the transshipment of spent fuel from Surry to North Anna that fairly arise from the proposals to receive and store 500 spent fuel assemblies at North Anna and to expand the spent fuel storage capacity at North Anna.

However, the Staff and Applicant maintain that NEPA does not require that this Board again consider the environmental impacts which had been previously considered in the final environmental statements at the operating license stage for Surry Units 1 and 2 and which had been factored into the NEPA cost-benefit analysis for that facility.[2] They argue that a reconsideration of these environmental impacts would constitute double counting of the same impacts and a replowing of the same ground. Further, they argue that, since the Surry FESs (Tables11.3) concluded that the effects of the annual potential radiation exposure to the population resulting from the transportation of spent fuel from Surry to Barnwell, South Carolina would be only a small fraction of natural background, these environmental analyses also adequately account for the environmental impacts of shipping spent fuel from Surry for intermediate storage at North Anna.

Louisa County and the Concerned Citizens contend that there would be no double counting. Louisa County asserts that an EIS should be issued since the Surry FESs exclusively addressed the radiological impacts of shipments of spent fuel over a specific route from Surry

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2 These final environmental statements were issued respectively in May and June, 1972, prior to the existence of Table S-4.

to Barnwell, South Carolina and did not consider other environmental impacts. Concerned Citizens argue that various environmental impacts of the now proposed transshipment of spent fuel should be analyzed in an EIS since they were not considered in the Surry FESs, and that, to the extent that there was some discussion of spent fuel transportation in the Surry FESs, that discussion was based on obsolete data, outmoded thinking, and invalid assumptions.

We are not persuaded by the Applicant's and the Staff's arguments which fail to bridge the crevasse. The Surry FESs were issued prior to the existence of Table S-4 and we are unaware whether the standards considered by the Staff were similar to the values subsequently prescribed in Table S-4. Moreover, even assuming such a similarity, the environmental impacts considered in the Surry FESs were only factored into the NEPA cost-benefit analyses for the Surry Units 1 and 2. On the other hand, with respect to the arguments of Louisa County and the Concerned Citizens, we note that none of the alleged previously unconsidered environmental impacts adverted to by them have been submitted in the form of proposed contentions and set forth with reasonable specificity.

We conclude that, pursuant to NEPA, we have jurisdiction to consider the reasonably foreseeable environmental impacts of the transshipment of spent fuel from Surry to North Anna that fairly arise from the proposals to receive and store spent fuel assemblies at North Anna and to expand the spent fuel storage capacity at North Anna. See Detroit Edison Company (Greenwood Energy Center, Units 2 and 3), ALAB-247, 8 AEC 936, 938 (1974). At this juncture in the proceeding, having insufficient information, we await the Staff's issuance of the

Environmental Impact Appraisal in August, 1983, which we trust will include a consideration of Table S-4 as well as a consideration of other environmental impacts, if any. (If more time is needed to prepare the EIA, the Staff is requested to furnish its best estimate as to the date that document will be issued.) At this time, we express no opinion whether there are any environmental impacts of fuel transshipment which either have not been previously considered or were inadequately considered in the Surry FESs. After the issuance of the EIA, pursuant to Duke Power Company et al. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC ___ (August 19, 1982), Louisa County and Concerned Citizens may assert in a timely manner new contentions founded upon information in that document. The bases for each such contention must be set forth with reasonable specificity as required by 10 C.F.R. § 2.714(b).

II. Whether alternatives to the proposed action must be considered under Section 102(2)(E) of NEPA despite the absence of need for EIS.

Applicant's position is that alternatives need not be considered if environmental impacts of the proposed action are insignificant and if the proposed action presents no unresolved conflict over the commitment of available resources. The Staff's position is that Section 102(2)(E) of NEPA, 42 U.S.C. 4332(2)(E),[3] is not limited

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3 This section provides that all agencies of the Federal government shall:

(E) study, develop, and describe appropriate alternatives to

to major federal actions with significant effects on the environment and may require consideration of alternatives even when an EIS is not required; however, the Staff suggests that a consideration of alternatives to the proposed spent fuel pool expansion be deferred until after the issuance of its Environmental Impact Appraisal. Concerned Citizens and Louisa County urge that this section of NEPA requires a study of alternatives in any action which involves unresolved conflicts concerning alternative uses of available resources even if environmental effects are not significant. However, Louisa County concurs with the Staff in suggesting that the Board should defer its decision on the alternatives question until after the Staff has issued the EIA.

The Staff's position is well-taken, being based upon two Appeal Board decisions.[4] We will defer ruling upon the question before us until after the EIA has been issued and the opportunity has been given to defend or challenge the content and conclusions of that document.

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recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.

4 Consumers Power Company (Big Rock Point Nuclear Plant), ALAB-636, 13 NRC 312, 332 (1981); Virginia Electric and Power Company (North Anna Nuclear Power Station, Units 1 and 2), ALAB-584, 11 NRC 451, 457 (1980).

Judge Ferguson joins but was unavailable to sign this Memorandum.

THE ATOMIC SAFETY AND LICENSING BOARD

Sheldon J. Wolfe, Chairman
ADMINISTRATIVE JUDGE

Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland
this 10th day of June, 1983.