



order to avoid a number of economic and non-economic penalties to Vermont Yankee and the ratepayers whom VYNPS serves.

3. Vermont Yankee began considering its options for accommodating the next refueling early in 1988, concluding that it had to make an election, by approximately June 1, 1988, either to perform the next refueling using "old" racks (PAR racks) or install the NES racks prior to refueling. Its final decision was made a few days prior to June 1, 1988.

4. As of approximately June 1, 1988, the last of the PAR racks had not yet been installed in the VYNPS spent fuel pool, and at least one additional PAR rack would have to be purchased in order to have enough capacity in the PAR racks on-site to accommodate the one-third core refueling plus the possibility of a full core off load.

5. At the same time, sufficient NES racks to accommodate the refueling and a possible full core off load had been ordered, were either already on-site or already scheduled for delivery in time to meet the refueling schedule, and had already been paid for or committed to be paid for.

6. As of approximately June 1, 1988 there were sufficient unused cavities in the PAR racks then in the pool to accommodate a one-third core reload. However, the anticipated re-racking, and the necessary movement of spent fuel assemblies to perform that re-racking, depended upon those empty spaces remaining empty. Were the existing PAR

racks used for the next refueling, then subsequent re-racking would not be possible without devising and employing some means of temporary storing spent fuel assemblies during the re-racking.

7. As of June 1, 1988 there were insufficient unused cavities in the PAR racks then in the pool to accommodate both the one-third core refueling and the possibility of a full core off load thereafter. Were the next refueling to be done using the PAR racks, then, in order to accommodate a full core off load, it would be necessary to insert additional PAR racks into the pool, at which point those racks become for the first time low level radioactive waste.

8. If the re-racking and consequent removal of the PAR racks were to be done prior to the next refueling, all or substantially all of the PAR racks could be removed from the pool prior to December 31, 1988. As of June 1, 1988 Vermont Yankee has contracts with persons to prepare the PAR racks removed from the pool for off-site shipment and ship them to an off-site burial facility. As of June 1, 1988 Vermont Yankee had no place to ship low level radioactive waste after December 31, 1988, and there was substantial uncertainty as to whether or not such offsite shipments would be possible after that date.

9. The next VYNPS refueling is presently scheduled to commence February 4, 1989. This schedule is established to accommodate a number of factors, including the burnup of the

core presently in the VYNPS reactor, and in coordination with the needs of the New England Power Pool. For these reasons, changes in the refueling date can be difficult and expensive to effect, based upon a number of factors not under Vermont Yankee's control.

10. In order to accommodate the refueling date, any re-racking activity must be completed by approximately November 15, 1988. A minimum of five NES racks must be installed in the pool to accommodate the refueling, and in order to install this number of racks by November 15, 1988, a decision to commence such installation was required by approximately June 1, 1988.

11. All of the foregoing facts are equally true as of the date of this affidavit with the following exception: since June 1, 1988, Vermont Yankee has commenced the re-racking and as of the date of this affidavit one NES rack has been installed in the pool.

12. Were the installation of the NES racks to be stopped, it will be necessary, in order to accommodate the next refueling, to reinstall any PAR racks that have been removed (and, depending on the point at which the decision were made, also to remove the NES racks already in the pool). This will require additional movements of spent fuel assemblies and additional movements of the contaminated PAR racks, with not insignificant attendant economic and environmental costs (primarily related to worker exposure).

13. Given the foregoing facts, Vermont Yankee was obliged to elect to perform the next refueling using either PAR racks or NES racks, and to make such election by on or before June 1, 1988. This decision was required to be made in the face of some uncertainty as to whether or not the pending application to increase the authorized maximum number of spent fuel assemblies from 2,000 to 2,870 would be approved, together with the certainty that that uncertainty would not be resolved prior to the date by which the decision had to be made.

14. As stated above, Vermont Yankee elected to perform the re-racking, that is to say, the substitution of NES racks for PAR racks, prior to the next refueling, for the following reasons:

a. If the refueling was to be done using PAR racks, then Vermont Yankee would have to acquire one additional PAR rack, to be kept on-site in order to accommodate a possible full core off load, at a cost of between \$150,000 and \$200,000. Were this option to be taken and subsequently the spent fuel pool expansion were approved and the re-racking performed, this \$150,000-\$200,000 would have been a wasted expenditure. On the other hand, the cost of the NES racks (excluding the cost of installation) had already been incurred (either paid or contractually committed), and those racks are equally functional for the storage of up to

2,000 spent fuel assemblies as they are for the storage of up to 2,870 spent fuel assemblies. Consequently, Vermont Yankee concluded that electing the path it chose imposed no economic penalty regardless of the outcome of the uncertain event, whereas electing the other path would have imposed a substantial economic penalty under one of the two possible resolutions of the uncertain event.

b. Were the refueling to be done prior to re-racking, then each of the spent fuel assemblies making up the one-third core reload would have to be moved twice, first into the PAR racks and then into the NES racks. There is a discrete environmental cost, primarily involving with worker exposure, associated with each move of a recently rejected spent fuel assembly. This is true even if one assumed (contrary to fact) that there would have been adequate room in the pool to make these movements without the necessity of finding some temporary storage capacity for spent fuel assemblies. (See the next paragraph below.) Consequently, Vermont Yankee concluded that, regardless of the outcome of the uncertain event, the path it elected eliminated the certainty of an additional environmental cost under one of the two possible resolutions of the uncertain event.

c. Re-racking a spent fuel pool requires that fuel assemblies be moved from old racks to the new rack as

each new rack is put in the pool, in order that empty old racks may be removed sufficient to free up floor space in the pool for the new racks. Because of the configurations of the racks and the number of empty cavities now in the pool, performing the re-racking prior to the next VYNPS refueling would permit this operation to be done without the necessity of temporarily storing spent fuel assemblies. On the other hand, were approximately 136 additional spent fuel assemblies (i.e., 1/3 of the core) to be placed in the pool prior to re-racking, then it would not be possible to perform the re-racking without such temporary storage capability. Vermont Yankee was (and is) uncertain as to how it would achieve this temporary storage capability, but it was certain that any such temporary storage would have additional economic and environmental costs associated with it. Consequently, Vermont Yankee determined that performing the re-racking prior to refueling eliminated the possibility of incurring these additional economic and environmental costs.

d. On account of the present unavailability of a means of accomplishing the offsite shipment of low level radioactive waste after December 31, 1988, and uncertainty as to whether such offsite shipment after that date will be possible, Vermont Yankee concluded that performing the re-racking prior to the next refueling

would eliminate the possibility that the old racks would be required to be retained on the VYNPS site after their removal from the pool.

15. In summary, Vermont Yankee performed a traditional cost/benefit uncertainty analysis. On each point, it determined that re-racking before refueling would incur no incremental economic, environmental or operational costs. On the other hand, postponing the re-racking until after the refueling would incur additional economic, environmental and operational penalties if the spent fuel pool exchange authorization were ultimately approved.

16. Vermont Yankee would have made the same decision even had it regarded each of the two possible outcomes of the uncertain event (i.e., approval of spent fuel pool expansion and denial of spent fuel pool expansion) equally probable. However, Vermont Yankee was aware of the fact that numerous prior spent fuel pool expansion applications have been made, that none of these re-racking applications have been denied, that none have been found to have any significant environmental costs, and that there is nothing unique about Vermont Yankee or its application. Consequently, Vermont Yankee concluded that the probability that the above-described economic, environmental and operational penalties would ensue were re-racking to be deferred until after refueling was significantly greater than 0.5.

17. For the reasons set forth above, a stay of the effectiveness of License Amendment 104, were it to require that the re-racking now in progress not be completed, would produce substantial injury to Vermont Yankee, its employees, the ratepayers whom VYNPS serves, and the general public, including:

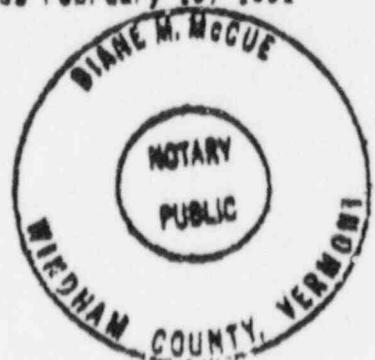
- a. The expenditure of significant unnecessary sums of money;
- b. The exposure of Vermont Yankee and contractor personnel to unnecessary radiation;
- c. The potential unnecessary generation of low level radioactive waste;
- d. The loss of a presently available offsite disposal solution for the PAR racks.

*Warren P. Murphy*  
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 Warren P. Murphy  
 Vice President and  
 Manager of Operations

STATE OF VERMONT)  
 ) ss  
 WINDHAM COUNTY )

Then personally appeared Warren P. Murphy, before and personally known to me, who, being first duly sworn, made oath that the foregoing statements are true, this 7th of July, 1988.

*Diane M. McCue*  
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 Diane M. McCue Notary Public  
 My Commission Expires February 10, 1991



CERTIFICATE OF SERVICE

I, R. K. Gad III, hereby certify that on July 7, 1988, I made service of the within document in accordance with the rules of the Commission by mailing a copy thereof postage prepaid to the following:

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