

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



In the Matter of)
)
DUKE POWER COMPANY)
)
(Amendment to Material)
License SNM-1773 for Oconee)
Nuclear Station Spent Fuel)
Transportation and Storage)
at McGuire Nuclear Station)

Docket No. 70-2623

FURTHER SUPPLEMENTAL TESTIMONY OF
RALPH W. BOSTIAN

- Q. In testimony filed with the Board and Parties on September 4, 1979, you were asked whether you had any additional testimony. You responded, "No". Based on subsequent events, would you like to present additional testimony?
- A. Yes, I would. I would like to update the record with respect to spent fuel storage at Oconee Nuclear Station. Since the hearings that were held on September 10-13, 1979, the high density reracking of Oconee Units 1, 2 has been essentially completed. Prior to the November 21, 1979 commencement of refueling of Oconee Unit I, eleven of the fourteen modules were in place. The cost to date of the high density reracking is approximately \$2.6 million. This amount is set forth in a work order established for the project.
- Q. Why were the three remaining modules scheduled for installation in 1979, not installed?
- A. The decision not to install the three remaining modules was made in September, 1979 and was based upon our continuing investigation of poison racks and their developing feasibility. We were of the opinion that if poison racks could be installed at the Oconee 1, 2 pool in the proper time frame, we could avoid the labor costs of installing these three modules now, removing them sometime in the future, and paying for their disposal. If it turned out that poison racks could not be implemented on this schedule for whatever reason we would still be able to install these three high density modules as late as the first quarter of 1981.

- Q. The decision date document that was provided to the Board on September 13, 1979 reflects that Duke would be at a decision point with respect to the installation of poison racks at Oconee by December, 1979. What has been Duke's experience in this regard?
- A. A specification for poison racks for the Oconee 1, 2 pool was developed within Duke's Design Engineering Department and was sent out for bids in November, 1979. The bids were received by Mill-Power Supply Company (a wholly owned Duke subsidiary) in December, were evaluated, and an award for the project was made to Westinghouse Electric Corporation in January 1980. We are scheduled to receive our first poison rack modules in December and the work is scheduled for completion by March-April, 1981, assuming timely regulatory approval. The poison racking of Oconee 1, 2 spent fuel pool will provide 1312 storage locations at an estimated installed cost of \$2.6 - \$3.0 million (1980 dollars). We have an option, which has not been exercised at this time, for 841 storage locations in the Oconee 3 pool at an estimated installed cost of \$1.8 - \$2.0 million (1980 dollars). The installation of the 1312 cells in the Oconee 1, 2 pool will allow Oconee Nuclear Station to maintain the capability of discharging one full core into the combined capacities of the two onsite pools through late 1986.
- Q. Why did Duke make the decision to seek approval for reracking Oconee 1, 2 with poison racks?
- A. Principally for the same reasons we chose to install high density racks. We were at a key decision point and there were uncertainties associated with the alternatives. As an insurance measure we felt it necessary to take this step. Although it too would be subject to the uncertainties of the licensing process. We had invested a great deal of time and effort in evaluating the feasibility of poison racks and by late September 1979 felt that they were a licenseable means of storage just as we believed high density racks were a licenseable means of storage in October, 1978.
- Q. How does this decision to use poison racks affect the need for Oconee to McGuire transshipment?
- A. As previously stated in the hearings there is a need for these shipments even if we are able to install poison racks. It is

uncertain whether poison racks will be approved and installed on a timely basis. To respond to this uncertainty, Duke must have alternatives in place. Transportation is the only reasonable alternative available in the existing time frame and it itself requires adequate time for planning and manpower purposes. In addition, if Oconee 3 is to utilize poison racks, shipment is mandatory.

- Q. Are there other reasons that support timely authorization of Duke's transshipment application?
- A. Yes there are. Transshipment would lessen the probability for double handling of the Oconee spent fuel. Transshipment of spent fuel from Oconee 3 to Oconee 1 and 2 spent fuel pool must begin next month and could continue periodically thereafter. This will result in the faster utilization of the Oconee 1 and 2 spent fuel pool storage space with the loss of full core reserve occurring in 1986. If Oconee 3 spent fuel were shipped instead to McGuire 1 spent fuel pool, the need to ship spent fuel from McGuire 1 would possibly not occur until 1993. This latter scenario has the distinct possibility for limiting double handling of the spent fuel from Oconee 3. To explain, if a repository or reprocessing is not in place by 1986 and 300 shipments from Oconee to McGuire were not approved, the fuel moved from Oconee 3 to the Oconee 1 and 2 spent fuel pool will have to be shipped off-site to an interim storage facility and thereafter to a permanent repository or reprocessing facility. If the spent fuel were moved to McGuire 1 it may not need to be shipped until 1993. This would provide an additional 7 years for the development of new and existing technology for dealing with spent fuel storage, including a final repository and/or reprocessing, thereby eliminating the need for shipment to an interim facility.

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BEFORE THE COMMISSION

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SNM-1773 for Oconee Nuclear)
Station Spent Fuel Transportation)
and Storage at McGuire Nuclear)
Station))

CERTIFICATE OF SERVICE

I hereby certify that copies of "Further Supplemental Testimony Of Ralph W. Bostian" dated March 14, 1980, in the above-captioned matter have been served upon the following by deposit in the United States mail this 14th day of March, 1980:

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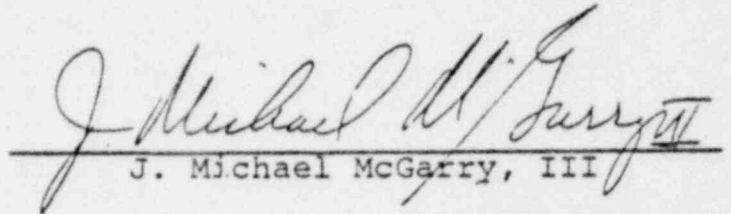
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