



COMMISSIONER

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

COMJSM-00-0003

October 31, 2000

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Approved. See attached comments.

*Greta Joy Dicus*  
Greta Joy Dicus - 12/12/00

MEMORANDUM TO: Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan

FROM: Jeffrey S. Merrifield *JM*

SUBJECT: STAFF READINESS FOR NEW NUCLEAR PLANT  
CONSTRUCTION AND THE PEBBLE BED REACTOR

As you are aware, several utilities are seriously exploring the option of building new nuclear plants in the United States. Joe Colvin, the President of the Nuclear Energy Institute (NEI), recently announced that a new plant may be ordered in the United States within five years, but that conditions for doing so may be ready in as little as two years. In addition to these activities, PECO Energy (PECO) is actively involved in Pebble Bed reactor initiatives in South Africa. If such initiatives prove successful, it is not inconceivable to think that PECO may try to utilize this technology in the U.S. According to recent comments attributed to Corbin McNeill, PECO's President and CEO, PECO could apply for a design certification in as few as 15 months.

I am not prepared to address the likelihood of these initiatives, and I certainly do not want to give the impression that I am in any way promoting them—as I am not. However, given the magnitude of the technical, licensing, and inspection challenges associated with these initiatives, I believe the agency must approach them in a proactive manner. Specifically, I believe it would be prudent for us to take the steps necessary to ensure that the staff is prepared to carry out its responsibilities should new plant orders emerge or should PECO, or any other entity, pursue the Pebble Bed reactor in the United States.

I am sensitive to staff resource constraints, and appreciate that our limited resources must primarily be focused on immediate and definitive needs. However, consistent with the NRC's "Corporate Management Strategies," I believe the Commission must, at a minimum, better understand what general steps need to be taken and the timeframes required to do so, to assure agency readiness should these challenges arise. Therefore, I propose that the Executive Director for Operations (EDO) take the following actions.

1. Assess our staff's technical and licensing capabilities and identify enhancements, if any, that would be necessary to ensure that the agency can effectively carry out its responsibilities associated with a new plant application.

*JSM to determine disclosure*

*V/4 3*

- JSM to Admin's challenge
2. Given that the NRC has not overseen the construction of a new plant in several years, assess the agency's inspection assets to determine where there are gaps in knowledge and expertise.
  3. Critically assess the regulatory infrastructure supporting Part 52, and identify where enhancements, if any, are necessary.
  4. Given that staff understanding and expertise associated with the Pebble Bed reactor will take time to develop, assess what should be done by the NRC to gradually build a prudent regulatory foundation and an appropriate level of expertise commensurate with the rate of progress made on the Pebble Bed initiative in South Africa.

I propose that the EDO provide the Commission with a schedule for completing these actions by January 2, 2001. The EDO should also provide the Commission with the results of these assessments, including the timeframes discussed above, upon their completion.

COMMISSIONER DICUS' COMMENTS ON COMJSM-00-0003:

I approve Commissioner Merrifield's proposal to assess the staff readiness and preparation for a potential new nuclear power plant application. The staff should include resource estimates for activities listed in it's schedule for completing the assessment. Since, at this time, we are not certain whether a potential new nuclear power plant might come in under Part 50 or Part 52, the staff should assess the regulatory infrastructure associated with licensing a new plant under both Part 50 and Part 52.

I am pleased that the EDO, as discussed in his November 14, 2000 memorandum to the Chairman and the Commissioners on "Advanced Reactors", has already taken some initial steps to prepare the staff should a new nuclear power plant application be received. As the staff starts the process to become better prepared for a potential new plant application, it is important to recognize the large degree of uncertainty in the planning process. Consequently, the staff should be thoughtful and judicious in committing resources at this time. It seems prudent that we link our commitment of resources to the progress of the industry toward submitting a new nuclear power plant application. Beyond initial regulatory infrastructure assessments, any schedule developed by the staff may be best served by linking it to milestones and not necessarily calendar dates.

The staff should work with NEI and other stakeholders to appropriately exercise aspects of the review and approval process and identify potential policy issues for resolution as early as possible.