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**NOTATION VOTE**

**RESPONSE SHEET**

TO: Annette Vietti-Cook, Secretary  
FROM: CHAIRMAN KLEIN  
SUBJECT: SECY-08-0019 – LICENSING AND REGULATORY  
RESEARCH RELATED TO ADVANCED NUCLEAR  
REACTORS

Approved  X  Disapproved       Abstain      

Not Participating      

COMMENTS: Below       Attached  X  None      

Supplemental Vote to my comments, provided on 4/25/08.

*David L Sheen for*

SIGNATURE Dale E. KLEIN

*5/6/08*

DATE

Entered on "STARS" Yes  /  No      

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*A/4*

**CHAIRMAN KLEIN'S SUPPLEMENTAL VOTE - SECY 08-0019 -LICENSING AND REGULATORY RESEARCH RELATED TO ADVANCED NUCLEAR REACTORS**

I have reviewed all the votes for this paper and appreciate the general support the Commission has demonstrated for preparing for the licensing of advanced reactors. I agree that uncertainty exists with respect to the pace and the type of advanced designs that will be submitted to the NRC, and that we must be flexible in the planning and resourcing of the program. However, I believe that we cannot afford to postpone the startup of the Next Generation Nuclear Plant Program (NGNP) with decisions on the FY 2010 budget. Therefore, I have decided to supplement my previous vote on this matter as follows.

When given appropriate and timely resources, NRC has been able to develop the necessary infrastructure to complete the review of license applications in a timely manner. This is evidenced by the success of the NRC's activities in operating reactor license renewal, power uprates, and preparation for Combined License applications in FY 2008 and FY 2009. There are strong indications that NRC will need to be ready to receive applications for advanced reactor designs as early as FY 2010. The Congressional direction in the Consolidated Appropriations Act of 2008 for Department of Energy (DOE) to accelerate work on the NGNP, and the long lead-time required for the development of codes and data needed to prepare the regulatory framework and supporting technical bases for potential license applications for high-temperature gas-cooled reactors calls for the NRC to begin a program in FY 2008.

It has been many years since the NRC licensed a gas-cooled reactor. This fact, combined with advances in materials technologies, and codes that have been made during that time, means that we must re-learn and focus on the applicable science needed to perform our safety reviews. Accordingly, RES should initiate the recruitment and hiring of staff with the requisite skills needed, (which should be in the range of 4 - 8 FTE), and reallocate \$1 million in contract support funding from lower priority research to begin developing the necessary high-temperature gas-cooled reactor research and NGNP development activities this year. Additionally, RES and NRO should start recruiting and developing contract vehicles to implement activities in FY 2009 necessary to support licensing the NGNP by 2021.

Aside from the NRC's obligation to DOE to conduct meaningful pre-licensing interactions and conduct effective and timely application reviews, the agency must be forward looking and begin to hire and train the next generation of regulators. I would also note that other Nations have already committed to the commercialization of advanced reactors through national policy. These national development programs increasingly involve international collaboration. If the NRC expects to be a leader in developing the regulatory framework for advanced designs, we need to begin developing our technical expertise immediately. The staff should address in the FY 2010 budget proposal resources needed in FY 2009 and FY 2010 for the NRC to stay ahead of the curve and minimize the need for dramatic spikes in resources.

/RA David Skeen (Per verbal) for /

Dale E. Klein

5/07 /08