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**Release of RELAP5 for Testing and Potential Modification**


Ref. 1: Letter, Louis M. Shotkin (NRC) to R.J. Schomaker (Babcock and Wilcox), "Transmittal of RELAP5/MOD2/36.03 and 36.04 – ECJ-21-87," March 9, 1987.

AREVA NP Inc. (AREVA NP) is working with the Department of Engineering at Virginia Polytechnic Institute and State University (Va. Tech) to develop testing and potential modifications to RELAP5. The fluid dynamics in the once through steam generator downcomer region is well characterized and can be replicated with the current version of the code. However, at higher core power levels, a different flow regime exists due to the higher required feedwater flow rates and higher mixture level in the tube region. The larger flow rate tends to entrain steam through the orifice plate and potentially in to the tube region, so additional studies are desired. Virginia Tech has proposed performing some testing to characterize these conditions and to identify potential code modifications that can be used to replicate the expected fluid conditions.

This information has been discussed with AREVA NP's Project Manager, Holly D. Cruz. This letter is being provided for information only.

If you have any questions related to this letter, please contact Ms. Gayle F. Elliott, Product Licensing Manager at 434-832-3347 or by e-mail at [gayle.elliott@areva.com](mailto:gayle.elliott@areva.com).

Sincerely,

  
Ronnie L. Gardner, Manager  
Corporate Regulatory Affairs  
AREVA NP Inc.

cc: H. D. Cruz  
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Project 728

**AREVA NP INC.**

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