



November 25, 1992

US Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Re: Closure of October 14 Report on Inadvertent Reactivity Addition  
Penn State Breazeale Reactor  
License Number R-2, Docket Number 50-05

On October 5, 1992, an incident occurred at the above facility. In summary, an operator, when changing a control system parameter with all rods fully inserted, erred and caused an inadvertent partial withdrawal of one rod. A full description and analysis was given in the October 14, 1992 report to the NRC.

Continued study of the event has confirmed our initial conclusions that the root causes were: (1) operator error and (2) inadequate procedural controls on software tuning changes.

Procedural controls have been implemented to allow software tuning changes only when the change is detailed and controlled by a standard facility procedure, an approved experiment authorization, or by implementation of the facility change procedure. This ensures that each tuning change is described, analyzed, and approved by the appropriate oversight individual, committee, or agency prior to implementation. In addition, no tuning changes are allowed to occur unless (1) the core is unloaded such that it is subcritical with all rods withdrawn or (2) all control rods are fully inserted and physically or electrically rendered incapable of being withdrawn from the core.

Sincerely,

Marcus H. Voth  
Associate Professor, Nuclear Engineering  
Director, Radiation Science & Engineering Center

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