

June 23, 2009

Mr. Thomas Gurdziel
9 Twin Orchard Drive
Oswego, NY 13126

Dear Mr. Gurdziel:

This is in response to your May 31, 2009, letter to Mr. William Borchardt, in which you expressed concern regarding the practice of tripping the reactor, rather than the turbine, in response to turbine vibration problems at pressurized water reactors (PWRs).

Unlike the boiling water reactors (BWRs) with which you are familiar, the design of PWRs typically features an automatic trip of the main turbine in the event of a reactor trip from any power level. Therefore, the operators' action to manually trip the reactor in response to a high-high turbine vibration condition at the Donald C. (D.C.) Cook Nuclear Power Plant referenced in your letter also resulted in a simultaneous automatic trip of the main turbine. The operators' immediate actions, which included opening the main condenser vacuum breakers to stop main turbine rotation, were determined to be correct and appropriate in that tripping the reactor first subjected the reactor coolant system to less of a transient.

The event at Palo Verde Nuclear Generating Station (Unit 3) referenced in your letter involved an increase in main turbine vibration during a planned shutdown sequence at approximately 29% reactor power. Given that the normal shutdown procedure instructs the operators to initiate a manual reactor trip at approximately 20% reactor power, the operators' action to trip the reactor in response to increasing main turbine bearing vibration was within the discretion allowed by the shutdown procedure. Moreover, due to prior issues with main turbine vibration, the operators had been given "just-in-time" training before the planned shutdown that included direction to trip the reactor if main turbine bearing vibration increased. Therefore, the operators' action to initiate a manual reactor trip was consistent with the governing procedure and, in any case, resulted in a simultaneous automatic main turbine trip, just as it did at the D.C. Cook Nuclear Power Plant.

CONTACT: John Munro, Acting Chief, IOLB
301-415-1097

In summary, the NRC staff considers the operators' actions at both reactors to have been appropriate based on the facilities' procedures and design features. Thank you for sharing your concern regarding this practice.

Sincerely,

Frederick D. Brown, Director **/RA/**
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

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 Office of Nuclear Reactor Regulation

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