

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
FAILURE OF MAIN STEAM LINES BECAUSE OF MAIN FEEDWATER OVERFILL
NCR NEB 80-11
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

A Preliminary Safety Concern, PSC 35-79, was initiated within B&W which presents the concern that a potential exists for overflowing steam generators by excessive addition of main feedwater or auxiliary feedwater.

Excessive feedwater addition is defined as a condition which would exist if feedwater (main or auxiliary) is continually added to the steam generator in an unplanned fashion at a rate greater than the core heat generation capability for converting it to steam. Overfill may be defined as a limiting case of excessive feedwater addition which allows liquid spillage into the steam lines.

Potential results of overfill could be:

1. Steam line deformation and failure because of water accumulation
2. Steam generator blowdown because of steam line failure with the potential for core return to power from a safe shutdown condition, excessive steam generator tube stress, exceeding reactor vessel NDT limits, or containment overpressurization

Interim Progress

TVA is continuing to evaluate this concern. TVA and B&W are working to incorporate mitigative instrumentation into the Bellefonte units.