
Identification of Concerns

- Two concerns have been raised during public meetings to discuss risk-informed alternatives to combustible gas control requirements
 - Purging the containment atmosphere at hydrogen concentrations that are not a threat to containment integrity
 - Early activation of external recombiners results in an additional potential leakage path, a distraction to operators, and unnecessarily high exposure rates
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Containment Purging Systems

- 10 CFR 50.44 requires that purging systems be provided following a LOCA
 - A purging system is for the controlled release of the containment atmosphere
 - The staff has verified that the GE, B&W, CE, and Westinghouse GTGs do not direct operators to inappropriately purge
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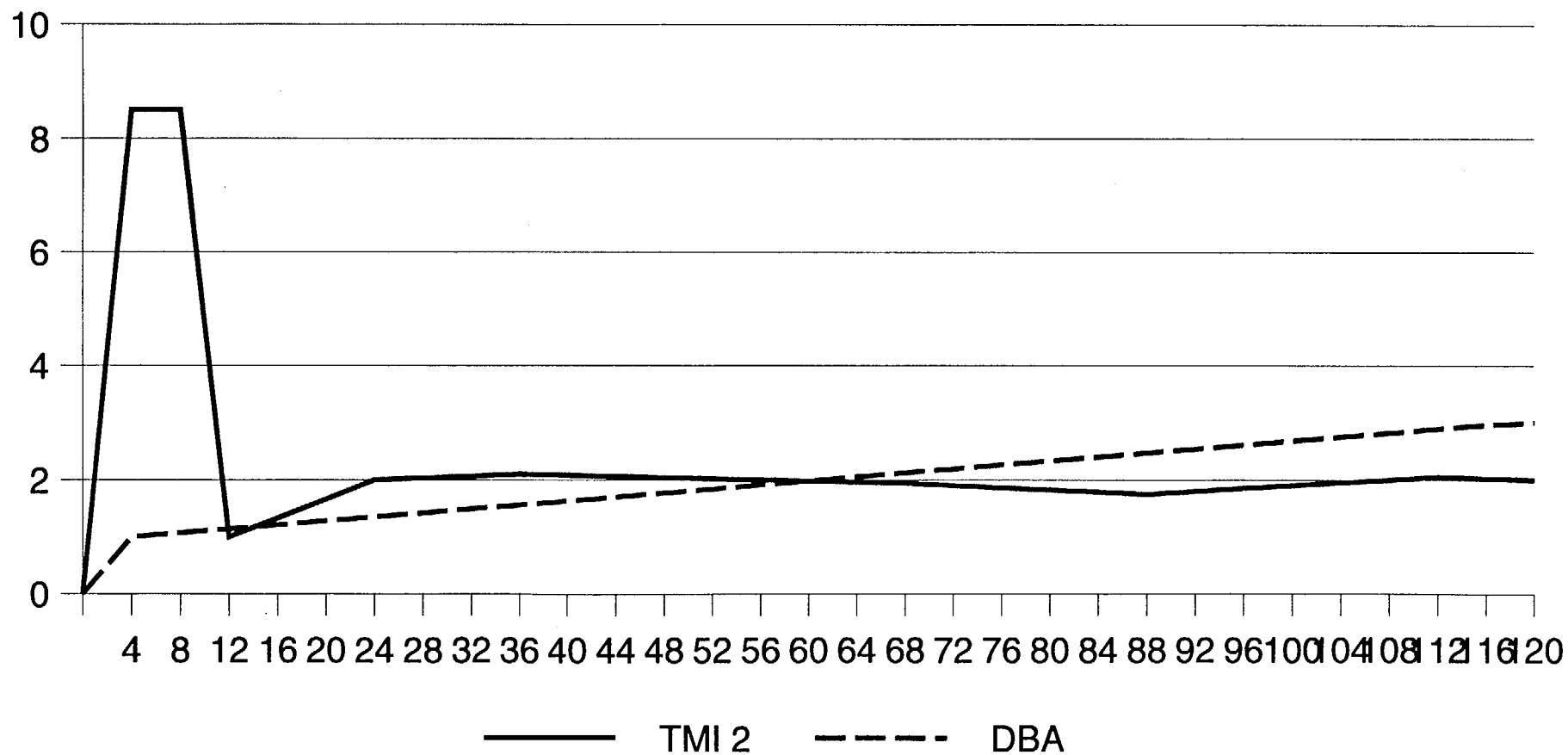
Premature Purging of Containment

- Licensees' with construction permits prior to November 5, 1970, may have included purging systems in their EOPs
 - These plants rely on repressurization/purge as the primary means of design basis hydrogen control
 - EOPs that rely on repressurization/purge may instruct operators to vent containment prior to its reaching 4 percent
 - This appears to contradict SAMGs
 - May result in unnecessary exposure to public
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Safety Significance of Premature purging

- EOPs that instruct operators to vent containment prior to its reaching 4 percent:
 - Appear to contradict SAMGs
 - May result in unnecessary exposure to plant personnel and public
 - Would be based on “design basis” plant behavior as opposed to “best estimate”
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Containment Hydrogen Concentration



Safety Significance of Early Activation of External Recombiners

- Early activation of external recombiners results in:
 - an additional potential leakage path,
 - a distraction to operators,
 - Unnecessarily high exposure rates to plant personnel activating and isolating recombiners
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EOP Simplification?

May be more appropriate for activation of external recombiners and purging systems to be controlled by decision makers in the Technical Support Center via the severe accident management guidelines instead of the EOPs
