

BWR OWNERS' GROUP

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Richard Dudley
Policy and Rulemaking Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
Washington, DC 20555-0001

Subject: RISK-INFORMED CHANGES TO LOSS-OF-COOLANT ACCIDENT TECHNICAL REQUIREMENTS, COST BENEFIT INFORMATION REQUESTED AT AUGUST 17, 2004 PUBLIC MEETING

The NRC Staff has requested cost benefit comments on the conceptual rule for risk informing 10 CFR 50.46. The following comments are provided to the Staff for their use in developing this rule change.

1. Cost:

The implementation requirements of proposed rule are very open-ended as to the costs to prepare the submittal and gain NRC approval. Issues such as:

- The effort required to gain Staff approval for the new class of methods used to demonstrate the mitigation of this new category of “mitigated beyond design basis events,”
- The costs to potentially “re-qualify” SBLOCA methods below the TBS,
- The outcome of the pilot plants for the trial use of Regulatory Guide 1.200 on PRA requirements,
- The administrative burden from both the new “cumulative CDF and LERF” tracking and reporting requirements, and
- The uncertainty over the “reversibility” requirements

Each of these and possibly others not identified makes it extremely difficult to project the true costs of adopting the proposed rule. Without seeing the review standards, Regulatory Guides, and other supporting documents for the proposed rule, it is extremely difficult to evaluate the cost-benefit of this rule, independent of any value that could conceivably be gained.

2. Benefit

The rule at present designates a 20 inch double ended guillotine break for the new Transition Break Size (TBS). This break size is approximately the same as the existing recirculation pipe diameters. Given the size of the TBS, there is no benefit estimated, and even a significant deficit, envisioned by BWR licensees adopting the new 50.46 a.

If the new TBS were defined as 20 inches equivalent cross sectional area, then it is judged that BWRs could take advantage of the rule for :

- Recovering some operating margin that has been used in expanding the power/flow map, and
- Reducing blowdown loads for reactor internals, annulus pressurization, shroud repairs, and pipe whip restraints based on the condition that the rule language were broad enough to include regulations associated with loadings
- Reducing the number of snubbers based on the same condition as the second bullet above.

Unfortunately, it is difficult to estimate the benefit of these potentialities given the uncertainty of changes in specifics in the draft conceptual rule.

3. Correction of Staff information

During the public meeting on August 17, 2004, the NRC staff explained a typical PWR LOCA response as a reason for why "we [the Staff] don't expect BWRs to be able to perhaps take advantage of this rule as much as PWRs." Jennifer Uhle (Section Chief in Reactor Systems Branch in NRR) presented and explained a general curve that for all PWRs have a double humped curve with two PCT peaks, one in the small break LOCA region and one in the large break region. She went on to state for BWRs, "It's really difficult to define a PCT versus break size spectrum" because of actuation of ADS. She concluded that break sizes in the BWR are "more equalized" and the double humped curve is not developed.

Attachment 1 is a presentation made by Dan Pappone (GE) to the NRC Staff in a public meeting on October 17, 2001. The purpose of the meeting was to introduce LOCA/LOOP separation as the BWROG approach to risk informing 10 CFR 50.46. The purpose of the presentation was to explain that there was no adverse effects by having a delayed LOOP for BWRs. This presentation provides some background information on BWROG LOCA response and the typical double humped curve was explained.

This information is being offered for your consideration as well as to correct the record regarding BWROG LOCA analysis.

4. Information response date

During the public meeting on August 17, 2004, Kathy Haney (NRR Program Director in Rulemaking) stated that information may be able to be submitted to the NRC later than September 10, 2004 but not as late as the end of September as requested by the BWROG. The procedure for approving information from the BWROG for issuance outside the participating utilities takes about two weeks; therefore, this letter has addressed issues that control costs and not the actual costs. At a later date at the request of the Staff, more detail may be developed given a wider time window for response.

Respectfully yours,



Kenneth S. Putnam
BWR Owners' Group Chairman

Attachment: Pappone Presentation to the NRC Staff dated October 17, 2001

**cc: J. E. Conen, BWROG Vice Chairman
BWROG Primary Representatives
BWROG Option 3 Committee
B. Pham, NRC
J. Butler, NEI**