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Date: 4/30/03 11:34AM
Subject: Holtec 72.48 FSAR change to allow for hydrogen generation

The 72.48 Task Group (O'Connor, Narbut, Waters, Drew Barto, Lee, Bajwa, Giantelli, Temps, Lathrop) met this morning and it was suggested that I send an e-mail to inform staff of the outcome of the Holtec 72.48 issue so that everyone can begin to gain a better understanding of the changes allowed under 72.48.

Upon discovering that hydrogen gas was being generated by the boral plates in a HI-STORM MPC due to a galvanic reaction with the pool water at Columbia Generating Station, Holtec prepared a 72.48 to change the FSAR discussion on galvanic reactions. The FSAR was changed from stating that hydrogen generation would not occur in the MPC to stating that there may be some hydrogen produced. We reviewed the 72.48 and disagreed that the change could be made under 72.48 because it created the potential for a hydrogen ignition.

Our position was that a hydrogen ignition could create the possibility for an accident of a different type than previously evaluated in the FSAR [72.48(2)(v)]. However, after much heated debate and discussion over the 72.48 NEI guidance document (which we endorsed in Reg Guide 3.72), we have decided that this change is authorized under 72.48. The basis for that decision is that an accident is defined in the NEI guidance document as creating a risk to public health and safety. A hydrogen ignition would potentially create a risk to workers, but would not likely result in a risk to members of the public at the site boundary.

We examined whether the boral should be considered as a malfunctioning component as described in 72.48 [72.48(c)(iv) and (vi)]. We determined that the change would not even rise to the level of requiring a 72.48 evaluation because the "design function" (i.e., criticality control) of the boral did not appear to be affected by the galvanic reaction in the pool water.

Hopefully this does not confuse you even more than you already thought you were on the 72.48 process. We are planning to provide SFPO staff training in the near future to better familiarize you with an overview of how this change process effects the way we should be doing our work in the future.

If you would like to discuss this issue or 72.48 in general, you can ask any of the Task Group members for more insight.

Thanks,
Steve

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