

January 15, 2003

To: David Diec

From: Gareth Parry

cc: J.S. Hyslop
J. Bongarra

Subject: Manual Actions

I'm not quite sure what you expected of my review of the rulemaking plan. In any case, here's my reaction.

When replacing a barrier by a human action, it seems to me that what you are doing is giving up a reliance on detection and suppression, which is enabled by the existence of the barrier, and replacing it with a reliance on the operators to recover, or otherwise find a workaround for those things that the barrier would have protected. In a sense what you're saying is that, in the time line of the fire progression, you'll initially give up the equipment whose functionality was supposed to be protected, and rely on a late recovery. In the original design, i.e., with the barriers intact, you don't lose it because you suppress the fire before the equipment is lost. These are very different models of the risks from fire, and it is not simple to trade on off against the other. The trade off you'd have to evaluate is the probability of recovery against the reliability of the detection and suppression. This is not spelled out in the rulemaking plan, and I'm not sure who is prepared to take this on (J.S.?). However, you probably can make a good case that if all the criteria a through j have been met, then you've done as well as you can to ensure that the operators will succeed. Whether you can say this is as good as a three hour fire barrier I don't know. Maybe we need to discuss this some more.

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