

Comment #3 – 4/14/15 – 8:30 p.m.

This email contains a comment on the exposure draft on assessment and disclosure of risk.

I emphasize that this comment does not necessarily represent the views of my employer or of any of the actuarial bodies to which I belong. I am a Fellow of the Institute of Actuaries (UK), a Fellow of the Society of Actuaries, A Member of the American Academy of Actuaries, and an Enrolled Actuary.

In response to this question:

Do you agree that the guidance in section 3.3 regarding assumptions used for the assessment of risk should include moderately adverse but plausible outcomes? If no, what guidance would you propose?

My answer is that such assessment of risk is insufficient. I believe the correct standard should be to test to find a set of assumptions that represent the threshold on which risk becomes unacceptably large. After that, the actuary can express an opinion on the likelihood of such a scenario and the steps that would avoid it.

Before Hurricane Sandy, New York City raised the tidal defenses significantly. Hurricane Sandy breached them. If instead of building defenses to a “moderately adverse but plausible outcome” (the once a century storm)” the city had determined the threshold where the defenses would not hold, and then determine how likely such a scenario might be, it is possible that New York would have built to a higher standard and averted the disaster.

Consider the ceiling of a conference room. At some level of weight on the ceiling, it will collapse. An engineer who used moderately adverse but plausible outcomes could infer, say, that the ceiling weighed 5 ton, that a moderately adverse assumption was that a two ton item might be placed on top of the ceiling, and that the ceiling would not collapse with such extra weight.

Suppose the building owner buys a new air conditioning unit that will fit over the ceiling and that weighs 6 tons. The engineer’s moderately adverse but plausible test would be useless in determining the risk of putting a six ton item on top. If, instead, the engineer had determined the extra weight at which the ceiling would collapse, and found it to be 5.5 tons, the engineer’s report could caution not to place items on top of the ceiling that weighed over 5.5 tons. That advice would provide useful risk mitigation, since the building owner would know that a 6 ton unit would be dangerous if placed on top of the ceiling.

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