

## ***Interactive comment on “Comment on “Global risk of radioactive fallout after major nuclear reactor accidents” by J. Lelieveld et al. (2012)” by J. Lelieveld et al.***

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not discussed through the self-imposed questions, but Q about the previous original paper:

Furthermore, the authors only consider the core melt. True, it occurred, but the cause of the catastrophic events was not at all the core melt. The destruction of the reactor building at Fukushima occurred for the reason that hydrogen was formed by the contact of water with the hot material of the metallic surfaces the fuel element hulls; this hydrogen was not released to the environment ('venting') as in other modern reactor design, but collected outside the reactor containment but inside the building. After the gas mix-

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ture reached the level to explode the building was destroyed. This is the situation for Fukushima; at Chernobyl which lacked the typical containment the situation was even more complex as the water came also in contact with the over-heated carbon block (the moderator) forming 'reactor gas' (a method to convert carbon into carbon monoxide plus free hydrogen! = a method of coal liquefaction); this gas in contact with oxygen was the initial cause of the catastrophic explosion.

the hidden but obvious political aspects: Chapter 7 'Phase-out of NPPs in Germany' begins with clearly ideological observations and political statements which must not appear in any scientific publication. On top of all it is not true what is said about the German government: The main party in the governmental coalition (Christian democrats) had to fear the forthcoming elections in the Federal State of Baden-Wuerttemberg and to lose the majority there; not at all in accord with the theory about large impact and rare events. The weeks before this, the Federal government had already added many years of extra operation for all NPPs in Germany. And the sudden shut-down of eight NPPs after Fukushima had no rational foundation. Furthermore, the general phase-out of NPPs in Germany had already been final decision by the red-green Government before, and the black-yellow Government only re-established the previous decision.

to be noted: also those comments above do not belong into a scientific paper about nuclear accidents! But this first sentence by the authors calls for reply.

The political intentions became clearly obvious by the press release (in German) from the MPI, Mainz which caused considerable attention and discussion in Germany.

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