A panel of the US National Academy of Sciences charged to investigate the dangers of low-energy, low-dose ionizing radiation has concluded “that it is unlikely that a threshold exists for the induction of cancers... Further, there are extensive data on radiation-induced transmissible mutations in mice and other organisms. There is therefore no reason to believe that humans would be immune to this sort of harm.”

Some more conclusions of the Biological Effects of Ionizing Radiation Report VII (BEIR VII):

- background radiation, excluding radon, is responsible for 1 cancer incidence in 100 of us. That equals 60 million people worldwide.
- the risk from exposure to radiation allowed at the regulatory limit would also induce approximately one cancer in 100 members of the public exposed over a 70 year lifetime. For workers the allowed risk is 1 in 4 at the allowable limits over a 50 year occupational life.
- the risk of getting cancer is about 35% higher than current official risk figures used in the United States predict.
- x-rays may be 2-3 times more dangerous than other forms of radiation, meaning that CT scans would generate about 1 cancer per 300-400 procedures.

The panel was given its charge in 1999 and in June of that year, over 120 groups and individuals signed a letter to the Academies which voiced concern about the composition of the BEIR VII committee.

The letter warned that the panel composition was not balanced, and in fact, contained many individuals who had prejudged the issue of radiation and health to conclude that radiation was less damaging than current regulatory assumptions stated. Many of these individuals were either employed by the nuclear industry in some capacity, or had loudly proclaimed their views. There were no panel members who had spoken for making radiation standards more protective, nor did NAS invite any individuals to participate who had been recommended by citizens’ groups up to that point. Because of this imbalance, the letter warned of potential Federal Advisory Committee Act (FACA) violations committed by the Academies.

Some of the more ardent and publicly pro-nuclear individuals were removed from the panel, but many individuals remained who felt low doses were less harmful and that a threshold was possible, ensuring that the panel was still unbalanced. Even with this questionable panel composition, the committee could not ignore the current body of scientific studies that are now recognizing harmful and hitherto unpredicted effects at very low doses of radiation. Citizens groups reminded the panel of these study results and presented persistent, relevant yet unanswered questions regarding environmental, human, animal health and low-dose radiation exposure.

The panel report falls short in two key areas: First, since there is no safe dose, why should we allow any exposure at all except in cases of individual consent? To allow such exposures dooms a certain number of people to disease, a number of people much higher than allowed for other pollutants. The panel concludes that this one cancer case will hardly be noticed in a sea of “normal” cancer cases.

Which brings us to the second flaw: When pressed, the panel admitted that synergistic radiation effects are barely studied in scientific literature. Therefore our knowledge about how dioxin, cigarette smoke (or other poisons) and radiation interact in the body, are woefully lacking. How, then do we really determine which cancers radiation helps to cause versus the ones caused solely by radiation? In an increasingly polluted world, this becomes a necessary question.

For a copy of the BEIR VII report online, see: [http://www.nap.edu/openbook/030909156X/html/](http://www.nap.edu/openbook/030909156X/html/)

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