

Review of: "The Lesser Evil: Plutonium-239 or Uranium-235? A Study on F0 Atomic Bomb Survivors"

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Potential competing interests: No potential competing interests to declare.

Dear author,

I read carefully your article about "The Lesser Evil: Plutonium-239 or Uranium-235? A Study on F0 Atomic Bomb Survivors". The approach you have chosen is very innovative and the mathematical and statistical apparatus is quite robust and novel. However, as I understood correctly, there are major issues, that are misunderstood and wrongly interpreted.

The main issue lies in the fact that U-235 and Pu-239 nuclides are used to create nuclear weapons. Their main purpose is to detonate via nuclear fission creating radionuclides with A around 140 and 90 (Cs-137, Sr-90) and 2-3 neutrons together with prompt and delayed gamma radiation. This fact is the same for all fission nuclides. What really differentiates them from each other is residual contamination created by non-consumed fission material (i.e. U or Pu), its distribution to the environment, and INTERNAL CONTAMINATION. Probably this would be the main differentiating factor. All other aspects are the same. Thus, I recommend studying the problematics of nuclear weapons in more detail, together with nuclear chemistry and radiobiology before writing similar studies. The last thing I want to address is the heading – the title suggests that there will be some explanation, of what is what, but in conclusion, there is nothing about lesser or greater evil at all. In the light of the statement written above, I do not recommend to accept this article.