

‘Knowledge’ about dangers of nuclear power not based on proper science

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‘There is no such thing as a ‘pro-nuclear environmentalist’,’ says the US-based lobby group Beyond Nuclear. ‘Environmentalists don’t support extractive, non-sustainable industries like nuclear energy, which poisons the environment, releases cancer-causing radioactive elements and creates radioactive waste deadly for thousands of years.’

This was in response to a new documentary film, *Pandora’s Promise*, which charts the almost Pauline conversion of five well-known environmentalists from bitterly opposing to strongly advocating nuclear power.

What’s most likely to get us into trouble, Mark Twain observed, is not what we don’t know “it’s what we know for sure that just ain’t so”. There are few subjects on which so many people, from politicians to rock stars, NGOs and environmentalists, passionately and confidently espouse views that are so completely at variance with observed reality as nuclear energy.

The cultural roots of this antipathy run deep. For instance, the cartoon series *The Simpsons* has been mercilessly lampooning nuclear power as corrupt and unsafe for over 20 years. Still, after the nuclear disaster in Chernobyl in 1986, in which thousands of people reportedly died horribly, with hundreds of thousands more deaths and birth defects in the last quarter-century, small wonder people are terrified. These fears spectacularly resurfaced at [Fukushima](#) in March 2011.

Now, take a moment to reread the previous paragraph. It sounds like the death knell for nuclear power; and it would be were it true. Certainly, lobby groups from Greenpeace to [Chernobyl Children International](#) (CCI) have worked tirelessly to propagate this apocalyptic appraisal. The scientific evidence has been, to put it mildly, unco-operative.

Post-Chernobyl

The [United Nations](#) Scientific Committee on the Effects of Atomic Radiation (Unsear) has extensively reviewed the evidence post-Chernobyl and concluded that total fatalities were around 50.

Yes, 50. These were mainly among emergency workers, as well as a handful of fatal childhood thyroid cancers.

The greatest long-term threat to affected populations post-Chernobyl is not, Unsear found, from any epidemic of cancers or birth defects, but “widespread psychological reactions to the accident which were due to fear of the radiation, not to the actual radiation doses”.

People have been quite literally frightened to death by radiation scare stories.

The CCI website today carries photos of limbless children, which it clearly intends to portray as current victims of an epidemic of deformities.

“In the first instance, there was no increase in birth defects, even in the affected regions. None. Zero,” according to cancer specialist Dr John Crown. “The children whose deformities are highlighted by the charities did not get them as a result of radiation.”

Despite the Unsear report being by far the largest international medical and scientific review of the Chernobyl disaster, I failed to locate a single mention of it on the CCI website. As for Fukushima, a total of zero of the 19,000 or so fatalities from the earthquake and tsunami are accounted for by radiation.

Even accepting that fears of nuclear accidents have been grossly exaggerated, why risk it and instead simply concentrate on renewables and energy conservation?

Having run the numbers, environmentalist Michael Shellenberger said in *Pandora’s Promise*: “I ended up feeling like a sucker. The idea that we’re going to replace oil and natural gas with solar and wind, and nothing else, is a hallucinatory delusion.”

This position has a powerful ally in Dr James Hansen of [Nasa](#) who has consistently urged a radical decarbonisation of global energy supplies as our last shot at averting catastrophic climate change. While strongly supporting renewables, he adds: “It is not feasible in the foreseeable future to phase out coal unless nuclear power is included in the energy mix.”

A Nasa paper published in April pointed out that some 1.8 million lives have already been saved globally in recent decades where nuclear power has replaced fossil fuels. Ironically, fly ash produced by a coal-burning plant like Moneypoint in Co Clare emits some 100 times more radiation than a similar-sized nuclear power plant. Globally, some 3,500 people a day, many aged under five, die as a result of breathing air contaminated by fossil fuel burning.

The ongoing gross misrepresentation of the risks and benefits of nuclear energy as a power source has perhaps been the single greatest factor stymying the development of “next generation” technologies, including molten salt and pebble bed reactors that offer more efficient and much safer alternatives.

Prof David McKay of the UK’s department of energy and climate change recently endorsed a novel solution for dealing with its problematic 100 tonnes of plutonium and 35,000 tonnes of depleted uranium wastes. Rather than being buried, this waste material could fuel a new generation of “fast breeder” reactors and provide enough zero-carbon energy to power Britain for up to 500 years.

McKay is adamant that such research is complementary, rather than a threat, to renewable technologies.

Pandora’s Promise throws down the gauntlet to set aside our preconceptions and come up with workable solutions on a massive enough scale to address the most dangerous crisis humanity has yet faced.

Demonising nuclear energy

Famed environmentalist Bill McKibben accepts that nuclear must be part of any serious push towards zero-carbon, but admits being reluctant to say so in public as “it would split this movement”. And that is the nub of the matter. Environmentalists have done such a thorough job of demonising nuclear energy that many now feel unable to retreat from these positions without serious loss of face.

The roots of this hostility go back to the Cold War, where the environmental and anti-war movements converged in opposing nuclear weapons. That battle is largely over, but humanity’s deadliest foe is now CO2. New threats will not be vanquished by repeating old slogans.

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