

MYTH

Safety

By living near a nuclear power plant,
we are exposed to unnecessary and
dangerous levels of radiation.

BUSTED!

*A person who lives near an operating nuclear power plant could receive an additional 0.001 mSv per year from normal operation, which is at least 1,000 times lower than the dose from natural background radiation.

* www.Canada.ca - correct at time of printing

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Safety

Transporting nuclear fuel and materials is inherently dangerous and poses significant risks to public safety.

BUSTED!

Transporting nuclear materials, including spent nuclear fuel, is conducted with rigorous safety protocols and has an exemplary safety record. Globally, about 15 million packages of radioactive material are transported each year on public roads, railways, and ships.

Radioactive material is not unique to the nuclear fuel cycle. About 95% of radioactive consignments are not related to nuclear power.

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Safety

What about Three Mile Island?

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"A small amount of radiation was released from the [Three Mile Island] plant. The releases were not serious and were not health hazards.

This was confirmed by thousands of environmental and other samples and measurements taken during the accident.

There were no injuries or adverse health effects from the Three Mile Island accident."

* World Nuclear Association – correct at time of printing

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Fukushima Daiichi created a tritiated water release which must be terrible for the environment?

BUSTED!

The release will be at a level below the operational target value for tritium discharge of the Fukushima Daiichi plant before the accident.

These discharge amounts are well within the standard range of the amounts from any operational nuclear power station around the world.

The radiation levels are insignificant – drinking 1L of tritiated water would be the equivalent dose to eating 4 bananas.

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What about accidents like Fukushima Daiichi? Surely that's a reason to be concerned about nuclear power?

BUSTED!

*"There have been no deaths or cases of radiation sickness from the nuclear accident, but over 100,000 people were evacuated from their homes as a preventative measure.

Official figures show that there have been 2313 disaster-related deaths among evacuees from Fukushima prefecture.

Disaster-related deaths are in addition to the about 19,500 that were killed by the earthquake or tsunami."

*World Nuclear Association –
correct at time of printing

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What about Chernobyl?

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Chernobyl was a terrible disaster and the nuclear industry needs to continue learning from it.

*According to UNSCEAR:

- 134 people on the site received high doses and suffered from radiation sickness, of these, 28 died in the first three months.
 - 19 more died in 1987-2004 of various causes not necessarily associated with radiation exposure.
- Even when including the deaths from Chernobyl, nuclear still shows one of the lowest death rates for an energy producer.

* UNSCEAR - Information correct at time of printing

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Nuclear energy is extremely dangerous, just look at Fukushima Daiichi and Chernobyl.

BUSTED!

While accidents like those at the Chernobyl and Fukushima Daiichi plants are serious, modern reactors have advanced safety systems that decrease the risk of an accident. Statistically, nuclear has caused fewer deaths per unit of energy produced than coal, oil, gas, biomass or even hydropower.

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After the Chernobyl accident, Ukraine abandoned nuclear energy, a clear sign that nuclear power is a concern.

BUSTED!

Unit 4 at Chernobyl was destroyed in the accident but they continued to operate the 3 other units at the plant. The accident led to a heightened focus on nuclear safety, but Ukraine did not stop using all nuclear power.

Ukraine still relies on nuclear energy, with 15 reactors generating a significant portion of the country's electricity. It also has plans to construct more nuclear power plants.

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Nuclear carries an unacceptable risk.

BUSTED!

We all take risks in everyday life, we need to consider how we perceive risk.

The nuclear industry is strongly regulated to minimise risks.

The risk of unmitigated climate change is far, far worse, especially as there is scientific consensus around the world for the continued use of nuclear energy.

Nuclear energy is as safe as wind and solar energy.

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Surely our nuclear installations are
vulnerable to terrorist attacks?

BUSTED!

Nuclear installations are designed using a multi layered defence in depth approach to security, safety and protection of the environment.

This includes measures to affect physical, cyber and human security.

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What about all the deaths from
nuclear accidents?

BUSTED!

Any deaths associated with any industry are tragic. However, when compared to all energy sources, nuclear comes out as having one of the lowest death rates - it is comparable with wind and solar.

*Death rates per unit of electricity production (based on accidents and air pollution per terawatt-hour of electricity)

Solar 0.02, Nuclear 0.03, Wind 0.04, Hydro 1.3, Coal 24.62

* Our World in Data – correct at time of printing

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Safety

Living near a nuclear power plant
increases your risk of cancer.

BUSTED!

Radiation occurs in nature, radiation from nuclear plants accounts for less than half of 1% of all the radiation you receive. Significant amounts are from natural sources, e.g. Radon in the ground.

In the UK and EU, any practice involving the use of ionising radiation must clearly outline and demonstrate how the benefits of such radiation outweigh any consequences before being allowed to operate.

And remember radiation is actually used to treat cancer.