NUCLEAR ENERGY

THE BETTER ENERGY

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Nuclear Energy - The Better Energy is an initiative to create awareness about the benefits of Nuclear Energy and to help the society get rid of the fears and misconceptions related to this environment friendly source of energy. We proudly present to you the issue of our first newsletter.

NUCLEAR 101

Nuclear 101 is a section where we will bring to you some of the most basic concepts of Nuclear Physics explained in a non-specialist way

Bananas are radioactive! A typical banana contains 0.5g of Potassium of which 0.012% is radioactive Potassium-40, corresponding to a radiation dose of only 0.01 mrem (rem is a unit of radiation dose applied to humans and 'm' is a prefix for milli) .
Bananas provide a vital need for our body – potassium and our body knows how to safely handle the radiation associated with it.
The total amount of radiation that we receive by eating at most 100 bananas is equivalent to the dose received from living near a Nuclear power plant for a year. This radiation is low enough for our body to take care of , naturally.

FUN FACT

The radioactivity from a truck full of bananas can cause false alarms when passing through a radiation detection device setup to check on the smuggling of radioactive elements!!

FROM THIS ISSUE

RADIATION DOSE CALCULATOR

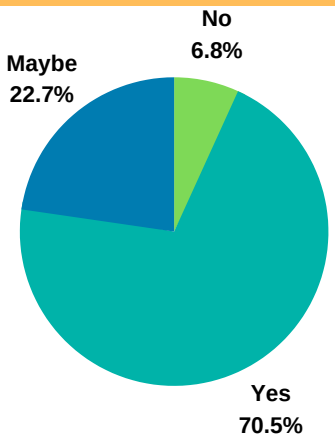
The U.S. Nuclear Regulatory Commission (NRC) provides a Personal Annual Radiation Dose Calculator on their website. It allows you to calculate the total annual radiation dose you have received depending on where you live, your lifestyle and adds that to the average background radiation that you are ought to receive on Earth.

The calculator points that you don't have to be living near a nuclear power plant or be working as a Uranium miner to receive a radiation dose. It makes clear that everyone living on this planet receives a radiation dose, albeit the number might vary depending on your lifestyle and other natural factors.

CALCULATOR

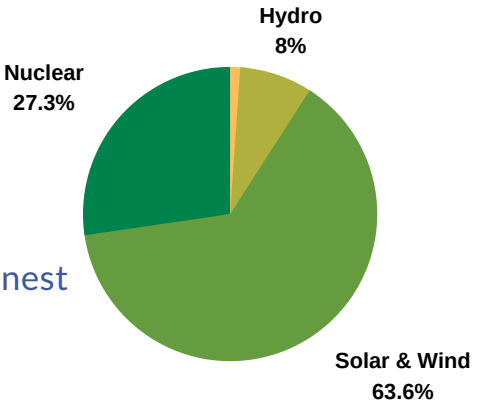
Results from Nuclear Energy Awareness Survey

Thanks to everyone who participated in our Nuclear Energy Awareness Survey. The survey was aimed to gauge the awareness and understanding of the society regarding the use of Nuclear Energy.



71% of the participants support the use of Nuclear Power as an environment friendly source of energy

27% of the participants think Nuclear Power is the cleanest source of energy



DID YOU KNOW?

The nation's largest nuclear power plant, Palo Verde Generating Station west of Phoenix, provides 70 percent of the state's clean energy. No carbon emissions. No air pollutants!

KNOW MORE

• ARTICLE OF THE MONTH •

Nuclear waste... and what to do with it?

Radioactive waste is usually produced as a byproduct of electricity generation in a nuclear power plant or other applications of nuclear technology such as medicine and research. It is commonly referred to as Radwaste. Radwaste can be either in solid, liquid or gaseous form.

Nuclear waste is a cause for concern because it is non-biodegradable, meaning that it does not decompose naturally. Secondly, it causes a number of health hazards for anyone who comes into contact with the radiation emitted from this waste. Its disposal and treatment hence requires extreme precaution and care. Various government regulatory bodies have been set up to govern the nuclear waste disposal process.

READ MORE

Radon Accumulation - why is it a problem?

Radon is a radioactive gas that is the decay product of Uranium (U) and Thorium (Th). Since both U and Th are found in rocks and soil, radon is released in the environment from these sources.

Radon can enter buildings or houses through openings in floors, walls or through construction joints and can get trapped if enough air circulation is not possible. Hence, radon accumulation mostly occurs in basements and enclosed spaces within buildings.

The average dose received by a person from radon in the atmosphere is 200 millirem.

Radon poisoning accelerates if the person is a smoker and is the second leading cause of lung cancer in the US. Ensuring proper ventilation and sealing floor and foundation wall cracks can help to maintain the radon levels in the basements at a controlled level so that it does not pose any danger to human health.

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