

Advantages of nuclear power

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While taking into consideration other sources of fuel, research has proven that nuclear power is the cleanest and safest source of energy and has the least adverse impact on the environment. In addition, it uses uranium, which is more plentiful than fossil fuels. Nuclear energy does not emanate any toxic gases or metals into the environment. It affects the ecosystem like the hydropower. Empirical research has proven that nuclear wastes have a less negative impact when compared to those caused by the silt in dams or produced by coal. More so, a pound of uranium can produce more than 20,000 times more powerful than that produced by a pound of coal (Miller, 2004). The nuclear plants produce by far fewer wastes than those produced by a coal of the same quantity. The fossil fuels emit wastes in the atmosphere whereas nuclear wastes are disseminated into the non-radioactive synthetic rocks that are buried underground in remote areas, hence having limited chances of harming any living thing. The amount of nuclear power is unlimited when compared to other sources of fuel due to the big volume of uranium in the earth's crust. Other sources of fuel like oil are likely to get exhausted, more so, most of the oil reserves are located at the golden triangle in the Persian Gulf. The area of the Persian Gulf is faced by many conflicts including the terror groups hence making extraction of oil very expensive and unreliable. When compared to nuclear power, solar power requires tax credits and government subsidies to make its power production viable. The wind power unfavorably affects the ecosystem by killing birds and other flying animals. Despite many people advocating for the use of wind power and solar power, they cause more harm to the environment than nuclear or fossil fuels despite producing a low quantity of power (Rajput, 2007).

Having considered one side of the coin, it is imperative to evaluate the negative impact of nuclear power. Although it is the safest, in case of an abnormal incidence, though it rarely occurs, the negative consequences are great as evidenced by the Fukushima Daiichi nuclear disaster as well as the 20th century Chernobyl nuclear meltdown. These deadliest nuclear power accidents have occurred in the world despite the presence of about 442 nuclear plants around the globe. The Chernobyl nuclear meltdown occurred in 1986 in the former Soviet Union whereby the nuclear reactors overheated resulting in radioactive material escaping into the world killing 28 people while seriously affecting another 134 employees of the plant. The Fukushima nuclear accident occurred after a tsunami in which a 9.0 earthquake hit the Plant resulting in the evacuation of more than 150,000 people after radioactive material was released into the environment (Rajput, 2004)

Conclusion

Based on the above pros and cons of nuclear power in comparison to other sources of energy, it is evident that nuclear power is the safest source of power. There are limited chances of accidents though when they occur, they are fatal. The amount of power produced by nuclear plants cannot be equated with other sources of energy. The negative impacts of other sources of energy cannot be compared with those caused by nuclear plants. Despite the dangers linked to nuclear power in case of an incident, nuclear power remains the safest and cleanest source of power around the globe.