

Advantages & Disadvantages of Nuclear Energy

By: *Celina Treviño (M) & Omar Alatorre(M)*

ADVANTAGES:

Nuclear energy tackles 3 of the greatest problems humanity has encountered in its struggle to get energy.

- a) Nuclear power plants don't require a lot of space.
- b) It doesn't pollute (it does, but in a very different way... more about it further on.)
- c) Nuclear energy is by far the most concentrated form of energy.

DISADVANTAGES:

- One of the main disadvantages of nuclear energy is that nuclear explosions produce radiation, this radiation harms the cells of the body which can make humans sick or even cause them death. Illness can appear or strike people years after they were exposed to nuclear radiation.
- A possible type of reactor disaster is known as a meltdown. In a meltdown, the fission reaction of an atom goes out of control, which leads to a nuclear explosion releasing great amounts of radiation.

Here are some examples of meltdowns that have happened through

history::

- In 1979, at the Three Mile Island near Harrisburg, Pennsylvania, the cooling system of a nuclear reactor failed. Radiation escaped, forcing tens of thousands of people to run away. Fortunately the problem was solved minutes before a total meltdown would have occurred, and there were no deaths.
- In 1986, a much worse disaster hit Russia's Chernobyl nuclear power plant. In this incident, a large amount of radiation escaped from the reactor. Hundreds of thousands of people were exposed to the radiation. Several dozen died within a few days. In the upcoming years, thousands more may die of cancers induced by the radiation.
- Reactors produce nuclear waste products which emit dangerous radiation, because they could kill people who touch them, they cannot be thrown away like ordinary garbage. Nowadays, lots of nuclear wastes are stored in special cooling pools at the nuclear plants.
- The USA plans to move all its nuclear was to an isolated underground dump by the year 2010.
- In 1957, nuclear wastes buried at a dump site in Russia's Ural Mountains, near Moscow, mysteriously exploded. This caused the death of dozens of people
- Another disadvantage is that nuclear reactors only last for about forty to fifty years.

Bibliography:

<http://www.thebulletin.org/index.htm>

<http://www.nuclearfiles.org/>