

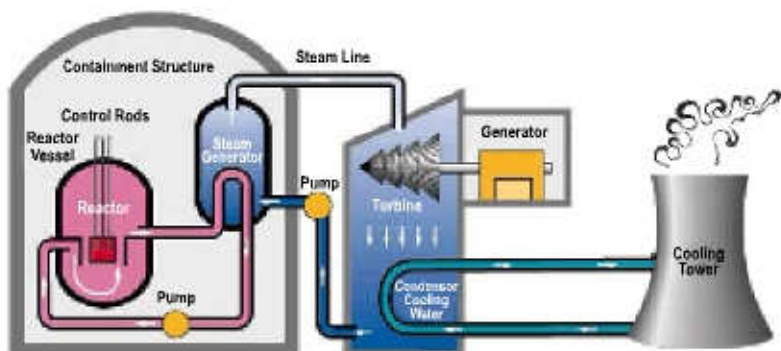
ENERGIZING OUR WORLD (II)

NUCLEAR POWER... IS THIS A SAFE OPTION?

In this issue we will continue to talk about our energy needs. In part 1 of "Energizing Our World" we have discussed the options available to us today. One such source of energy prevailing in our world today is obtained from the processing of a metal called Uranium and the energy thus produced is commonly known as the Nuclear power. We all know that the greatest necessity of the present civilization is energy and everything we do today may come to a standstill if energy is not available to us, but the question we should ask ourselves is that do we in the process of fulfilling this need, engulf our world in problems that we may not be able to control? At present a total of 443 nuclear plants are operating in 47 different countries of the world, supplying 16% of the world's electricity. Supporters of nuclear power claim that since there are no emissions in producing nuclear energy thus it does not contribute to global warming of our planet. Carbon dioxide is produced in the process of mining Uranium, which is the core element of nuclear energy. A more dangerous concern relating to nuclear power is not having the means to dispose off the highly radioactive waste that is produced in the process.

How does Nuclear energy reach us?

The process used in nuclear power plant is no different than that of a steam power plant except that it is fuelled by a radioactive element, called uranium. (Other types of power plants burn coal and oil to make steam) The fuel is placed in a reactor which splits the atom through a process called fission which results in releasing an enormous amount of energy. This energy boils water, turning it into steam, that power the turbines. The turbines turn the generator which produces electricity. This electricity is carried through power grids that help it to reach our homes thus lighting up our houses and our cities.



Major nuclear power accidents:

Nuclear technology was first developed to generate electricity in the 1950s. Before this time mankind always linked the word "nuclear" to the horrific destruction caused by the nuclear bomb in Hiroshima and Nagasaki in 1945 during World War II.

Though half of the world's population now relies on the nuclear power plants for their electricity requirement, over the years we have witnessed a growing opposition to this source of energy.

33 accidents have been identified at nuclear power stations since the first one in 1952 in Canada. Since then the world has been confronted with many major nuclear scares. In 1979 the first major accident occurred at the Three Mile Island plant in the US and in 1986 the world's worst known nuclear plant disaster occurred in Chernobyl, Ukraine. The Chernobyl catastrophe released 100 times more radiation than the atom bombs dropped over Hiroshima and Nagasaki. Radiation, after the passing of so many years even to this day affects the people of Chernobyl and surrounding areas. This year in March, Fukushima plant in Japan suffered extensive damage by the earthquake and tsunami. This incidence exposed the vulnerability of these plants to natural catastrophes which could lead to uncontrollable tragedy.



Nuclear power in Pakistan

In Pakistan, nuclear power contributes only 2.34% to the total country's electricity requirement. We have 3 nuclear reactors at present.

- The first called KANUPP near Karachi started in 1971.
- The second unit is Chashma-1 in Punjab, which started operations in May 2000.
- Construction of its twin, Chashma-2, started in December 2005. Operations were expected to start in May 2011.

Why say NO to Nuclear power?

It is universally accepted that Nuclear power is dangerous and will create problems rather than be part of the solution. The world has to make intelligent decisions now and start investing in renewable energy which is safe, clean and sustainable.

The generation process of nuclear power is extremely costly. It takes away the funds needed for the development of solar and wind power which will make energy affordable to poor nations.

The claim that nuclear power will reduce the consumption of oil is false as oil is used as fuels in our cars. There is no safe way to store the dangerous radioactive material produced by these nuclear reactors. They are stored in underground concrete bunkers because there is no way found yet to dispose them off. They are like ticking bombs lying beneath our earth. Exposure to this radioactive material has deadly consequences; it causes cancer in communities exposed to it.



Countries like Germany, Switzerland and Italy are making smart choices and abandoning nuclear energy in favour of clean and safe renewable energy that don't threaten our homes and our world with this radioactive menace. It's time for us to take intelligent decisions too, understand that for present benefits we are harming our world of tomorrow and we also need to remember that we don't have another world where we can go to if we damage this one with our selfish actions.

You are the leaders of tomorrow; you will be formulating the energy policies in the years to come. How well you understand these issues over the years will make you better prepared to face the future and make decisions that will have positive impact on the lives of people as well as the environment. Read up more on this issue, form your own opinion and share it with us at info@cmphr.org. We'd really like to hear from you.