

EFFECT OF NUCLEAR ENERGY ON HUMAN LIFE

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Abstract :

On one hand the life expectancy has increased and so does the energy demand, but in the same proportion the fossil fuel reserves are not increasing rather are depleting day by day. Hence arises the need for development of alternate sources of energy and energy efficiency.

If we want to ensure the comfort of our modern lives and continuation of our industrial civilization, then it is the need of the hour to use renewable energy and adopt more sustainable life style and find other energy resource.

Key Words : Nuclear Energy, Human Life

Introduction :

Technological advancement and rapid growth of industries has made (this civilization) our civilization an industrial civilization. This civilization run on energy and almost 85% of world's energy is provided by the fossil fuels, coal, oil and gas. But it seems likely that these fossil fuels will have been totally exploited over the few centuries from about 1850-2100.

Renewable energy sources mainly solar and wind energy can make & contribution to the energy needs of growing industrial civilization but only intelligent combination of energy conservation, and renewable energy for local intensity application needs to be urgently adopted and for base load electricity production- a safe energy source capable of ensuring the

continuation of our industrial clean, civilization while protecting the environment of needed. And for that purpose nuclear energy is the best option for human kind.

Nuclear energy :

Nuclear energy is clean, safe, reliable compact, competitive and practically inexhaustible.

Radiation - Safe or Unsafe :

The fear of unknown has created quite a concern among some of the anti-nuclear energy campaigners. Mistakes interpretation that even a small amount of radiation is dexterous to health in wide spread.

The fact is radiation is present everywhere. Visible light, the ultra –violet light form sun and transmission signals for T.V. and radio communication are all forms and radiations that are common in our daily lives. These are all referred to as ‘nonionising-radiation’. On the other hand x-rays discovered in 1895 and radioactivity from the decay of particular isotope was discovered in 1896. This led to identification of different kinds of radiation form the decay of atomic nuclei. The use of nuclear energy, along with X-rays in ionizing radiation.

Nuclear radiations arises from hundreds of different kind of unstable atoms. Ionizing radiation which can damage living tissues in emitted as the unstable atoms change spontaneously to become different kinds of atom.

Radiation can arise from natural sources of from human activity. The human environment has always been radioactive. Radiation arising from human activities typically accounts for upto 15% of the public’s exposure every year. This radian is no different from natural radiation except that it can be controlled. International commission on Radiological Protection (ICRP) is set up in 1928, makes recommendation and provides guidance on radiation protection. And radiation dosage are measured in the rem unit, which stans for Roentgen-r, equivalent-e in man-m. REM represents the amount of radiation needed to produce a particular amount of damage to living tissue. Although a dose of just 25 rems causes some detectable changes in blood, doses tonear 100 rems usually have no immediate harmful effects. As proven by the record of half a century of commercial operation, with the accumulated experience of more than 12000 reactor years nuclear energy is safe.

There have been only two serious accidents in commercial exploitation of more than 12000 reactor years, nuclear energy is safe.

There have been only two serious accidents in commercial exploitation of nuclear energy which were summarized as mismanaged engineering experiments. And in fact, Chernobyl was the perfect example of what not to do with a nuclear reactor. And TMI (Three mile Island) was the accident where in the radioactivity released was almost entirely confined within the reinforced concrete containment structure, the silo-like air tight building which was designed to prevent the escape of radiation. In sum, far fewer fatalities have occurred in the civilian nuclear power industry, in half a century (Chernobyl included) than occurred in the fossil fuel industries. Coal mine accidents are common occurrence and after cause tens or hundred of fatalities.

Reliable :

Nuclear reactors provide base load power and are available over 90% of the time. Most reactor are designed for a life of 40 years. Many have been granted extension of 20 years.

Inexhaustible :

The raw material needed for nuclear reactors is uranium which is found everywhere in the crust of the earth. Eventually uranium, dissolved in sea water will also be recovered from the sea.

Competitive :

The cost of the fossil fueled power is at the mercy of the market, where as the cost of nuclear power / energy is competitive and stable.

Clean :

Nuclear energy produces almost no CO₂, SO₂ or nitrogen oxide, whatsoever which are produced in vast quantities on burning the fossil fuels.

Nuclear Waste :

Nuclear waste is corresponding by about a million times smaller than fossil fuel wastes and it is totally confined. In sum an increasing number of environmentalists are now changing their minds about nuclear energy environmental reasons to be in favor of nuclear energy because there are very good, solid, scientific and above all environmental reasons to be in favor of nuclear energy.

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