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Research Paper

THERMAL POLLUTION - IMPACT ON LIVING ORGANISMS

PHYSICS

Keywords:

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ABSTRACT

Thermal pollution gives adverse effects to the living organisms. It leads to deterioration of aquatic and terristrial environment. But certain optimum temperature supports the growth of plants and animals, known as thermal enrichment. But now a days it damages more to the life.

I. INTRODUCTION

The temperature which gives more heat than normal is called thermal pollution. The nuclear or thermal power plants discharge 10 C higher in temperature. The stack uses about 15% . The muncipal sweage has high temerature leading to an aerobic condition of water. Usually raise by 20% heat content.

II. THEORY

Thermal pollution brutally gives the loss of living life in the form of global warming. Waste heat from power generation cooling process warm up several houses in winter. Thermo philic algae survives even at 85 C. The heat treated waste more dangerious than common waste.

Theare are few advantages due to thermal pollution.

- Heating of buildings/swimming pools in cold countries
- Survival of aqua culture and agriculture
- Shellfish survive only at heat water
- In power stations hot water used to reduce the pollution of flyash

Dis-advantages

- Thermal power plants raising the temerature 12% more than normal
- Flyash at thermal stations is big environmental pollutant
- Aquatic life can be adversely affected by rise in sea temperature
- Around the 1-2 km radius of power plant the pollution levels rises due to outlet temperature
- Human life affected by the sun's uv rays due to ozone layer depletion

III. PARAMETERS TO PREVENT THE THERMAL POLLUTION

The artifical lake is ideal solution in India. Plantation and forstation can also reduce the thermal pollution. Everyone should try to save the ground water levels. Instead of thermal power plants better to use solar and wind energy. So many organisms like fish, are damaged due to thermal shock, shears, chlorine toxicity, depletion of oxygen etc. And excess gas kills living organisms is called gan public diseas. Thus only solution to reduce thermal pollution is plantaion and reduce the carbon emission in air.

CONCLUSION

Heat in water increases chemical reaction, increases growth rate and recudes biomass. Accordin to 2nd law of thermodynamics it is required to convert heat energy into mechanical energy. The natural heat condensation process can be improved by nanoscience process.

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