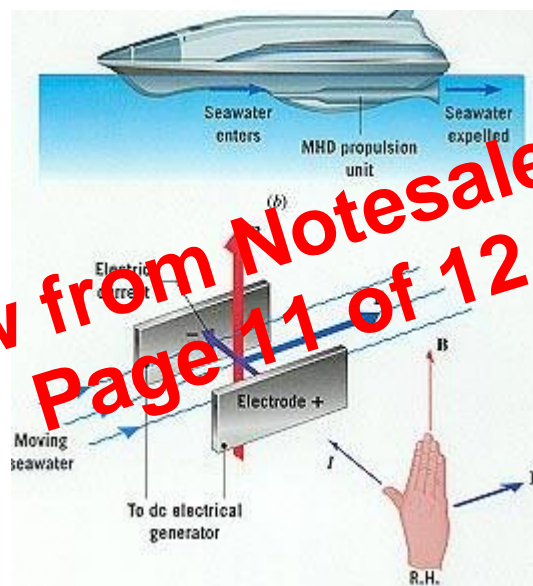


- ❖ Besides the use of MHD system for commercial electrical power generation it has got other special uses. A major effort was made in U.S.A use MHD as the conversion system in a nuclear electrical system for space craft.
- ❖ In India also considerable studies have been carried out in this field under the National Council of Science and Technology (NCST) .
- ❖ The Department of Science and Technology of government of India has sponsored research and development programmes on coal based MHD power generation.
- ❖ MHD conversion has also been considered for ship propulsion, airborne applications, hypersonic wind tunnel experiments and for many other defence applications.



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PROBLEMS ENCOUNTERED IN DESIGN OF MHD:

1. Sufficient high temperature for thermal ionization can be sustained by refractory materials. A more practical method of reducing the required temperature is by seeding.
2. Seed material potassium attacks insulating materials and make them conducting.
3. Electrode materials are chemically eroded by combustion of gases.
4. The major problem forced by this generator is the economics. Although the overall thermal efficiency is 60% against 40% for conventional thermal plant, additional investment in the magnet, generator, duct,

compressors, scrubbers, seed recovery plant and DC to AC converters may increase the plant cost and it may be much higher than conventional plant.

5. Most of the problems are related to material problems caused by high temperature and highly corrosive and abrasive environment.

CONCLUSION:

The threat of disappearing of the fossil fuels within few decades compel the human beings to search for new energy sources will last for a longer time. Extensive research is going on in different countries through out the world to find out the new resources to replace the conventional fossil one. With the present research and development programmes, the non-conventional power resources play an important role in the power industry . The magneto hydro dynamic power generation is one of the examples of a new unique method of generation of electricity. This power resource play a minor role presently and its use on a vast scale is yet to be confirmed as it is in its childhood stage. Man being optimistic should not leave the hopes of the success of this MHD generator as the technology took the man to moon which was a dream long time back, the same technology will help the human being to survive from the present crisis of power shortage.



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