Nuclear Power Plants Importance And Safety

Lithium battery that most of us use to power our electronics could be used to power fifteen years of a household if you used the lithium metal in nuclear production. The world dependence on oil and gas is not going to last for the future. Therefore, finding an alternative energy source is essential and that energy source is nuclear power. The safety of nuclear plants has been a controversial topic for a long time (?) and during this time technologies have been developed to ensure the safety of it. Security of nuclear plants against attack has always been a concern that nuclear power agencies take it very seriously. The world should start implementing nuclear power plants as the major source of energy because they are safe, not harmful to the environment, and are secure against terrorism.

In this era energy is essential for our life to maintain our modern lifestyle. Our greatest energy consumption resource is petroleum. Petroleum is a good resource for now, but it is not going to last for long. According to Bodansky (2018) “the long impetus for the development of nuclear power has been the eventual need to replace fossil fuels-oil (or petroleum), coal, and natural gas. Their supply is finite and eventually, at different rates for the different fuels, the readily available resources will be consumed…” (p.7). This means eventually we are going to need another resource for energy. The best replacement for fuels is nuclear power plants. They are more efficient and less harmful for the environment because they generate less carbon dioxide which causes global warming. Setting up a nuclear plant takes from five to seven years to start operating. Therefore, the sooner we start adjusting to the idea that nuclear power is the next generation energy resource, the better.

Another reason the world should start implementing nuclear energy is that history records of nuclear power plant facilities performance show that it is safe, if we did not count the former Soviet Union plants. Bodansky (2018) claims that “as the end of 2003, these reactors had a cumulative operating experience of about 10,100 reactor-years, of which about 2870 reactor-years were logged by U.S. reactors. There has been no accident in any of these reactors…” (p.371). The standards in designing and making nuclear reactors have been high because of concerns about nuclear accidents. Therefore, “intense efforts to achieve high standards” (p.374) have been put on making sure that nuclear plants are safe.

Some people might argue that there are safer (?) alternatives to nuclear power as an energy source. Also, one of the biggest concerns about nuclear plants are the terrorist attacks against it. Throughout history terrorists showed their willingness to die in a terrorist attack. Because of that we cannot be surprised if nuclear plants got attacked. However, alternatives such as solar cells and wind turbines cannot replace nuclear energy for the following reasons. Solar cells are a seasonal energy resource and take a lot of land; therefore, it cannot be dependable as major source of energy. Strong winds are not available everywhere on earth so it cannot be a major source of energy. Protection against such attacks have long been in place. Moreover, according to Bodansky (2018) “the U.S. National Council on Radiation Protection and Measurements (NCRP) issued NCRP Report No. 138 on Management of Terrorist Events Involving Radioactive Material. NCRP... NCRP 138 focuses on coping with consequences of a successful terrorist attack” (p.504). Even with all these measures, we cannot say for sure that nuclear plants are risk-free but other energy alternatives are more dangerous and harmful for our planet.

Therefore, we should consider nuclear plants to be a major resource of energy.

Nuclear power is an important part for the continuous of our future. The advantages that nuclear power has cannot be met by any other energy source replacements. A lot of people worked hard and are still working hard on making sure that we have a world where nuclear plants and peace and harmony exists together. International and local agencies put a tremendous effort to maintain the security of the nuclear plants. Starting to develop and build nuclear plants is going to be a must in the near future if we want our modern lifestyle to continue.