

Nuclear power still a deadly proposition

By <u>Dr. Helen Caldicott</u> Global Research, August 20, 2004 Baltimore Sun and NPRI 17 August 2004 Theme: Militarization and WMD

WHILE VICE PRESIDENT Dick Cheney is actively promoting nuclear power as a significant plank in his energy plan, he claims that nuclear power is "a safe, clean and very plentiful energy source." The Nuclear Energy Institute, the policy organization of the nuclear energy and technologies industries, is currently running an energetic campaign for the revivification of nuclear power. Ubiquitous TV and radio ads carry the admonition that "Kids today are part of the most energy-intensive generation in history. They demand lots of clean electricity. And they deserve clean air."

Also, a consortium of 10 U.S. utilities has requested funding from the federal government for the construction of new reactors based on a European design, and they hope to receive government approval by 2010. This is a major policy change since no new nuclear reactors have been ordered in the United States since 1974.

Nevertheless, the claims of the Mr. Cheney and the nuclear industry are false. According to data from the U.S. Energy Department (DOE), the production of nuclear power significantly contributes both to global warming and ozone depletion.

The enrichment of uranium fuel for nuclear power uses 93 percent of the refrigerant chlorofluorocarbon (CFC) gas made annually in the United States. The global production of CFC is banned under the Montreal Protocol because it is a potent destroyer of ozone in the stratosphere, which protects us from the carcinogenic effects of solar ultraviolet light. The ozone layer is now so thin that the population in Australia is currently experiencing one of the highest incidences of skin cancer in the world.

CFC compounds are also potent global warming agents 10,000 to 20,000 times more efficient heat trappers than carbon dioxide, which itself is responsible for 50 percent of the global warming phenomenon.

But nuclear power also contributes significantly to global carbon dioxide production. Huge quantities of fossil fuel are expended for the "front end" of the nuclear fuel cycle — to mine, mill and enrich the uranium fuel and to construct the massive nuclear reactor buildings and their cooling towers.

Uranium enrichment is a particularly energy intensive process which uses electricity generated from huge coal-fired plants. Estimates of carbon dioxide production related to nuclear power are available from DOE for the "front end" of the nuclear fuel cycle, but prospective estimates for the "back end" of the cycle have yet to be calculated.

Tens of thousands of tons of intensely hot radioactive fuel rods must continuously be cooled for decades in large pools of circulating water and these rods must then be carefully transported by road and rail and isolated from the environment in remote storage facilities in the United States. The radioactive reactor building must also be decommissioned after 40 years of operation, taken apart by remote control and similarly transported long distances and stored. Fully 95 percent of U.S. high level waste — waste that is intensely radioactive has been generated by nuclear power thus far.

This nuclear waste must then be guarded, protected and isolated from the environment for tens of thousands of years — a physical and scientific impossibility. Biologically dangerous radioactive elements such as strontium 90, cesium 137 and plutonium will seep and leak into the water tables and become very concentrated in food chains for the rest of time, inevitably increasing the incidence of childhood cancer, genetic diseases and congenital malformations for this and future generations

Conclusion: Nuclear power is neither clean, green nor safe. It is the most biologically dangerous method to boil water to generate steam for the production of electricity.

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