

To: The U.S. Nuclear Regulatory Commission Public Hearing May 1, 2008 at Gaffney High School, 149 Twin Lake Road, Gaffney, SC 29341.

I am Dr. Lew Patrie, Chair of the Western North Carolina Chapter of Physicians for Social Responsibility here to express concerns about Duke Energy's intention to build two more nuclear power reactors here in upstate South Carolina.

Whereas anxiety about global climate change and a growing energy shortage is leading to calls for more nuclear power plants, often overlooked are facts that nuclear power is massively expensive and risky. Without federal subsidies and incentives, including liability insurance, risk insurance for delays, production tax credits and loan guarantees totaling billions of dollars, Duke would not and could not consider construction of these 2 proposed reactors. Furthermore, during such proposed construction, rate payers would be expected to pay in advance, even if such facilities were never completed. While projected construction costs continue to rise, already each proposed new reactor will likely cost at least 6 billion dollars.

Despite nuclear industry's assertions that nuclear energy is "clean", nuclear plants cause thermal water pollution and nuclear fuel production causes air pollution. The Better Business Bureau has even told the nuclear industry to stop making such claims.

Contrary to assertions about the safety of nuclear power and that no adverse health risks arise from people living in proximity to nuclear reactors, recent findings suggest that children living near nuclear facilities face an increased risk of cancer. Though a link had long been suspected, but never proved, that seems likely to change.

A study of medical records found that infant death rates near five U.S. nuclear plants increased within two years after the plants opened. The study also found that infant deaths decreased 15-20% soon after the reactors closed. And the decreases in cancer and birth defects continued for 7 years after plant closure. (Environmental Epidemiology and Toxicology, 2002, Radiation and Public Health Project). When studies now more than 20 years old revealed increased incidences of childhood leukemia near nuclear installations in the UK & Germany, the official response was that exposure from the nearby plants was too low to explain the increases. However, last year researchers at the Medical Univ. of South Carolina analyzed research regarding 136 nuclear sites in the UK, Canada, France, Germany, Japan, Spain and the United States, reported increased leukemia incidences and deaths among children, depending on their closeness to the nuclear facilities (European Journal of Cancer Care, vol 16, p 355). Other studies found that children living within 5 kilometers of the plants were more than twice as likely to contract cancer as those living further away, a finding that has been accepted by the German government. Critics of these studies again asserted that the radiation doses from nuclear power plants were too low to cause cancer, but other new data assert that there is no safe level of radiation, that infants and children are at greater risk than the "standard man" about whom safety standards have been calculated since the Hiroshima bomb.

Difficult questions come with this new evidence of a connection between increased cancers and proximity to nuclear facilities, such as how to advise pregnant women and families with young children, and the safety of crops grown in proximity to nuclear reactors.

Concern about climate change creates another major problem as related to new nuclear power generation. In 2007, 12 of 32 nuclear reactors under construction worldwide had been so for more than 20 years. Moody's estimated that no more than two new nuclear power plants will come online by 2015. In addition to delays in finding suitable sites, dealing with community objections and getting permits, there is now a three-year backup in obtaining core reactor vessels, manufactured by a single Japanese company. We believe we do not have time to wait for proposed plants to become operational.

The most rapid and inexpensive method of dealing with shortage of electrical energy is through energy efficiency, which would be feasible if citizens' groups, industry, financial interests and government would immediately and vigorously and begin action as if our way of life depended upon it.

Truly renewable energy source should likewise be pursued. Wind power is already less costly than nuclear power, and the cost of solar energy is somewhat more expensive today but costs are coming down rapidly. Nuclear power plants may become economically obsolete before new ones could be brought on line. Solar and wind power do not need water, which we all know is an important issue in the southeastern U.S. The notion that renewable energy cannot supply the electricity requirements of the United States has been widely put forward without careful technical evaluation. Several sources suggest just the opposite. Nuclear energy appears to be the riskier course.


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