CallawayCEm Resource

From: R Wright [wright_rm@sbcglobal.net]
Sent: Wednesday, March 25, 2009 10:55 PM
To: CallawayCOLEIS Resource
Subject: Callaway Unit 2 COL - Comments
Attachments: Call Unit 2 NRC Scope 3-24-09 Corrected 3-25.doc

Please note corrected number for curies of tritium emitted per year, and other corrections, and accept this version as my official comment. Thank you. R. Wright

March 24, 2009 Corrections 3/25/09

Chief, Rulemaking, Directives and Editing Branch

Division of Administrative Services

Office of Administration
Mailstop TWB-05-B01M
U.S. Nuclear Regulatory commission
Washington, DC 20555-0001

Federal Register. Jan. 23, 2009, pp.4257-8

Dear Sirs and Mesdames:

A new generation of nuclear power plants is being proposed as a stop-gap measure to solve our short-term energy needs, and allegedly, to arrest the global warming trend that threatens the ecosystem upon which we depend. The fact that growth in the nuclear industry has been at a stand still for thirty years is clearly the result of the accident at Three Mile Island on March 29, 1979, and the accident at Chernobyl in April 1986. Nuclear power is a direct descendant of nuclear weapons, and a target for nuclear terrorists. Management of radioactive waste generated by the nuclear fuel cycle will cost billions of dollars for longer than recorded history, and for as long as history is recorded unless the waste is abandoned and its dangers neglected by future generations. Exposure to radiation increases the risk of genetic mutations, cancer and leukemia. The nuclear menace, like global warming caused by anthropogenic greenhouse gases, could be fatal to life as we know it. Instead of dealing with commenting on the licensing of new reactors on a case by case basis, we should be addressing the ultimate threat that nuclear power poses, and should be choosing energy efficiency, and safe, clean renewable energy technologies to meet our energy needs.

However, since we are only being asked to comment on AmerenUE's Callaway Unit 2 Application, I submit the following comments and questions:

Routine release of tritium and other radioactive isotopes to air and to water:
The Callaway, Unit 2 Application states that the proposed Areva U.S. Evolutionary Power Reactor will emit 1,660 curies of tritium per year. Tritium cannot be filtered so it is routinely released from nuclear power plants into the air and water. The Biological Effects of Ionizing Radiation Report, in its seventh revision (BEIR VII), finally acknowledges that there is no threshold at which radiation does not increase the risk of health effects. The level of tritium contamination is increased by routine releases of tritium to water and air from the reactors. Tritiated hydrogen dispersed into the atmosphere is converted to tritiated water. The water vapor travels downwind from the reactor and can be inhaled or ingested by animals including people, and taken up by plants including the produce we eat. In other words, all biota including humans become tritiated to the ambient levels in the environment. The International Commission on Radiation Protection (ICRP) considers that tritiated water's doses from inhalation and ingestion are 25,000 times greater than those for

tritiated hydrogen (ICRP, 1989)5.

Why are AmerenUE, NRC, the Energy Department, promoting a technology which routinely releases radio isotopes to the air and water when there are clean, renewable, and much less expensive, energy technologies available?

Generation and Management of Radioactive Waste:
Nuclear power generates radioactive waste that will remain dangerous for thousands of years. From uranium mining and milling, uranium enrichment, fuel fabrication, fissioning of nuclear fuel in a reactor, reprocessing, and ultimately the decommissioned power plant, this radioactive waste poses a serious danger to human health. Currently, over 2,000 metric tons of high level radioactive waste and 12 million cubic feet of low level radioactive waste are produced annually by the 103 operating reactors in the United States. No country in the world has found a safe, permanent solution for disposing of this waste. Building a new nuclear plant at Ameren's Callaway site would mean producing more of this dangerous waste, and having to store it at the plant site. What plans does Ameren have to secure and manage this waste indefinitely? Why would any well meaning industry undertake such a dangerous and expensive project, when cleaner, safer, renewable energy technologies are available?

Nuclear Power vs. Increasing Citizen Interest in Clean Renewable Energy
The Missouri House and Senate are currently considering several bills promoting clean, renewable energy, and energy efficiency. In 2008, 66% of Missouri voters approve Proposition C to create a Renewable Electricity Standard and an interconnection policy that will allow solar panels and wind turbines to connect to the utility grid. Schools and Universities are seeking to implement energy efficiency and renewables. Tom Carnahan, a Missouri business man, founded Wind Capital which now sells the city of Columbia 6.3 megawatts from the Bluegrass Ridge project. His Loess Hills project will power the town of Rock Port. The rest of the electricity is sold to Associated Electric Cooperative Inc.

Businesses such as Walmart are seeking to power their stores by renewable energy and have approached rural electric cooperatives to partner in using renewable energy. Google founder and president, Larry Page, has announced a new strategic initiative to develop electricity from renewable energy sources and hopes to help "spark a green electricity revolution that will deliver breakthrough technologies priced lower than coal."

There is clearly a movement within Missouri and nationally to convert to renewable energy technologies. Ameren advertises pure power, but its effort does not currently include construction or incentives for renewable generators or efficiency. In the mean time, it *is* seeking legislation to charge electric ratepayers hundreds of millions of dollars to fund its application and construction work in progress for Unit 2. Such public funds would be better invested in energy efficiency, and renewable energy technologies. Ameren's business plan appears to be very different, and incredibly more expensive, than what Missouri residents and some captains of industry envision.

The demand and market for renewable energy is growing rapidly. If a significant numbers of energy customers are able to buy their own solar electric and home heating systems or wind generators, and install net metering, or purchase less expensive renewable energy, in ten years will Ameren's investment in Callaway Unit 2 nuclear plant prove to be profitable?

Sincerely,

Rebecca M. Wright

2011 Rutger Street
St. Louis MO 63104

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March 24, 2009 Corrections 3/25/09

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