November 4, 2010 US Nuclear Regulatory Commission Scoping Meeting  
Subject: Proposed 20-year operating extension for the Davis Besse nuclear reactor

My name is Patricia Marida and I am the chair of the Nuclear Issues Committee of the Ohio Sierra Club.

The Sierra Club opposes nuclear energy in its entirety, citing serious environmental, health, and public expense issues throughout the nuclear fuel cycle. The time frames needed to guard the radioactive nuclear waste generated from this process are geological in nature. Isolating the radioactive nuclear waste will consume public time and money for generations to come. The only viable solution for radioactive waste is to stop generating it. Radioactive contamination and waste are a major reason to discontinue the use of nuclear power.

The risk and reality is that radioactive contamination has occurred, is occurring and will continue to occur throughout the nuclear power cycle. Mining is leaving radioactive tailings exposed to the air and water on First Nations land in the US, Canada and Australia. Contamination occurs throughout the milling, refining, transport, conversion of uranium to uranium hexafluoride (UF6), and then enrichment—which in the gaseous diffusion process at Piketon Ohio took as much energy as a large city. Then the fissionable uranium must be formulated into rods. An enormous waste stream is the depleted uranium hexafluoride (DUF6), which is 99% of the original uranium but is not fissionable and therefore not usable for energy. However, it is just as radioactive and must be deconverted back to the more stable uranium oxide. A newly operating plant at Piketon will take 25 years running round-the-clock to deconvert the 40,000 14-ton canisters of DUF6 already on the site, not counting how much more will be generated from other enrichment facilities.

The environmental effects that occur in other parts of the United States should come under consideration when the NRC develops the Environmental Impact Statement.

Enormous amounts of energy go into this process. Added together along with disposal, these supporting industries cause nuclear power to also come with a heavy carbon price, which means that nuclear power will not address but will worsen global warming.

Centralized electric power, complete with centralized corporate profits for the nuclear and coal industries, has been heavily subsidized by the public for many years. Without public subsidies, loan guarantees and liability limits, for which the public must bear the burden, no nuclear power plant would have ever been built.

In Ohio, the use of electricity has been decreasing for a number of years. Now with progressive legislation like Ohio’s SB 221, energy efficiency and conservation, combined with the renewable sources of solar, wind, and geothermal, are providing so much additional and conserved energy that all plans for new coal plants in our state have been cancelled and there is a strong movement to shut down the old polluting coal-fired plants. The argument of US rising energy needs is irrational at best and at worst the resulting global warming would threaten our life-support system, and yes, our “way of life”.

There is good reason why there are no new nuclear power plants coming online to replace the old ones. Wall Street will not support them. The enormous up-front costs and 12-20 year length of time for completion makes them financially uncompetitive with wind and solar. And the latter are decentralized, meaning that jobs are being
created all over the state. As compared to Davis Besse’s extended shutdowns, if the wind stops blowing or the sun is behind a cloud somewhere, there is likely not to be a serious or long-term power shortage problem.

A 20-year extension of the Davis Besse operating license is unfounded on the grounds of future electric-generating needs.

Even without the aforementioned problems plaguing nuclear power in general, the David Besse facility is in tenuous condition to continue operation, even at the present. Continuing for 20 years past 2017 would constitute reckless disregard for public safety and environmental integrity. The history of failures and dangers at this plant is well known and well documented, so the Sierra Club will not reiterate them here.

However, the process by which First Energy and the Nuclear Regulatory Commission allowed a delay in the inspection of the reactor head in 2002, coming within 1/8 inch of a nuclear disaster that would have left the Midwest uninhabitable and the Great Lakes, the world’s largest supply of fresh water, filled with radioactive contamination shows that the public should have no confidence whatsoever in the ability of First Energy to self-regulate or in the NRC to rigorously enforce and inspect so dangerous an operation as a nuclear reactor. They were willing to take these incredible risks simply based on profits. Not only that, but corporate culture makes it difficult for any one person to buck the system or feel responsible for anything other than following the orders of their immediate superiors.

Even the 40-year time frame for operation of a power plant does not have an engineering basis, but was based on the time needed to pay off construction bonds. What happened to the engineering responsibility to oversee and advise an operation of this magnitude of danger?

Last but not least, nuclear power is being used to keep the nuclear weapons industry afloat. Facilities and research for nuclear power can be transferred to weapons uses. The USEC enrichment plant at Piketon is a prime example. More importantly, however, is the need for “legitimating” the nuclear industry. Without nuclear power, the nuclear industry would be only about weapons of mass destruction, giving a very different light to university research, recruiting bright young students, and other jobs and research in the industry. As the prospect of the current generation of nuclear power plants shutting down approaches, a weapons industry desperate for a non-military front is the tail wagging the dog of the push for new and continued nuclear power.

(I also made additional verbal comments that the NRC should take into consideration that the pools of spent fuel rods at the site must be secured from terrorist attack or accident. I recommended hardened onsite storage of these rods, which consists of isolating them in canisters and securing the canisters behind earthen bunkers. Future comments can elaborate on how the NRC can get information on this process from the IEER. )