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Receipt and Availability of Application for License Renewal

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Comment On: NRC-2010-0298-0033

License Renewal Application for Davis-Besse Nuclear Power Station, Unit 1; Draft Supplemental Generic Environmental Impact Statement

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Comment on FR Doc # 2014-05021

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General Comment

See attached file(s)

Attachments

Comments to NRC on Davis-Besse license renewal 3-14

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April 20, 2014

United States Nuclear Regulatory Commission
RE: License Renewal Application for Davis-Besse Nuclear Power Station Unit 1
Docket No. 50-346; NRC 2010-0298

Addressing the U.S. Nuclear Regulatory Commission (NRC) License Renewal Application for Davis-Besse Nuclear Power Station, Unit 1; Draft Supplemental Generic Environmental Impact Statement
and the NRC's preliminary recommendation that adverse environmental impacts of license renewal for Davis-Besse are not great enough to deny license renewal.

The Sierra Club does not agree with the NRC assessment. The NRC has wholly failed to acknowledge public concern, as well as hard science, about the dangers of current and future radioactive contamination of Lake Erie, including the risks of catastrophic accident. The NRC has given unsubstantiated and inaccurate estimations of the risk of nuclear accident, flood, tornado and loss of external power. The NRC estimates in Appendix F that the frequency of a core damaging accident is once every 100,000 years, in spite of the fact that for Fermi 1, Three Mile Island, Chernobyl, and Fukushima the actual frequency has been proven to be far higher.

The NRC has failed to acknowledge that the engineered lifespan of nuclear reactors is 40 years. Extending reactor operations beyond engineered lifespans poses a considerably greater the risk of a nuclear catastrophe. The NRC has failed to address the risks of accident from increasing brittleness of metal and cement when in contact with radioactivity as years progress.

The NRC has not ruled out the risk of an accident causing severe radioactive contamination of the fresh water in Lake Erie and Lake Ontario, and perhaps also the rest of the Great Lakes. The Sierra Club is of the opinion that there is no justification for taking such a risk, no matter how small, particularly when the odds given by the NRC are at odds with reality. The odds of an accident at Fukushima where 3 reactors melted down and fuel pools were compromised would have been calculated as one in hundreds of billions, yet it has already happened. Totally unimagined scenarios have and will continue to take place at Fukushima and elsewhere. The NRC has failed to address the actual consequences of Davis-Besse's potential to contaminate the waters of the Great Lakes. A catastrophic accident has the potential not only to cause immediate and future deaths of persons, wildlife and ecosystems, but to cause collapse of government and civilization. The Sierra Club does not believe that the electricity from this facility, which continues to be easily replaced during reactor downtime, could ever justify risking human life and civilization.

The NRC has failed to adequately address the consequences of Davis-Besse's routine radioactive releases. The NRC has concluded that if the radionuclides are diluted, the problem will disappear. However, studies have shown that there is no safe dose of ionizing radiation, and that low doses of radioactivity can be far more deadly than originally thought. The NRC appears to be taking the industry position that if a particular cancer, stroke, heart attack, or birth defect cannot be proven to have been caused by radioactivity, then the conclusion must be that radioactivity did not cause these health problems. The NRC has used selective studies to back their position that there is little or no increase health risks around nuclear reactors, ignoring other studies that contradict this assumption.

The NRC has failed to take into account the continued cracking of the shield building. The NRC and FENOC's original determination that the cracks were the result of the blizzard of 1978, that they were not age related and that they were not widening defied scientific credibility. That conclusion has since been proven erroneous with

the lengthening and expanding of the cracks. This new cracking was found in a dozen core bore locations, leaving us to ponder what cracking actually exists throughout the entire concrete mass. The reactor was allowed to restart without the issue of the cracking being resolved. The latest, fourth cut-through of the shield building to install the new steam generators has only increased the probability of cracks enlarging over time. As one engineer put it, "The shield building will hold up just fine until something stresses it."

Then NRC must address a new contention of the 25-foot gap in the resealed cement of the shield building, revealed with the concrete forms or plates were recently removed from the previous 2011 pour. The public is incredulous as to how this gap could happen, first with multiple inspectors assigned to watch every action and second with any reasonable concrete pouring skills being used. We recently found in an ADAMS search that gaps were found in Davis-Besse's previous concrete patch of 2002 when the plates were removed from the concrete pour. The Sierra Club would like an explanation as to why, considering this 2002 scenario, the plates holding the 2011 concrete pour were allowed to remain in place until recently.

Another critical factor that was not adequately addressed is evacuation of the surrounding area in case of a radioactive emergency. Across the nation and around the world, real emergencies reveal the inadequacy of disaster preparation. Loss of electric power and generator failures have consistently contributed to nuclear emergencies worldwide.

NRC maintains in its summary that it has relied on consultation with Tribes. This consisted of writing letters to eight tribes, 7 of which letters went unanswered. We submit that the NRC must have actual dialogue with these eight tribes, which dialogue should take place at or close to the tribal meeting location. Native American cultural traditions must be respected.

The Sierra Club would like an explanation as to why the NRC would expect the Environmental Report submitted by FENOC to be anything other than a corporation acting in its own best interest? Why would a report by a vested financial interest be determined by the NRC to have credibility, while public concerns are rejected?

The NRC has failed to address the most serious issue of nuclear reactors, outside of an accident or meltdown, which is the generation of hundreds of tons of highly radioactive waste. Waste that will be around far longer than FirstEnergy or the United States government, or anything resembling the civilization that we have today. Kicking the radioactive can down the road – saddling future generations with the problems and the expense of isolating our generation's nuclear waste, is irresponsible at best and criminal at worst. The NRC should include in their assessment the environmental impact of Davis-Besse's waste for the next few hundred generations.

The issue of high burnup fuel waste must also be addressed. Even our best engineers are unsure how to properly handle out-of-water storage of this far hotter waste.

The Sierra Club has signed on to the Principles for Safeguarding Nuclear Waste at Reactors. In a nutshell, waste must be stored as close as safely possible to the site of generation. Waste must not be placed where it cannot be retrieved and resealed. A rolling custody of the waste will be necessary as generations progress.

The democratic process is undermined when members of the public have their ideas and critical information disallowed because they are not in a position to conform to the legalistic process crafted by the NRC. Not only has the general public been dismissed, but the evidence of skilled professionals has also been dismissed by the NRC. Additionally, the rejection of professional arguments by the NRC occurred after the Atomic Safety and Licensing Board hearing the arguments agreed with the petitioners that wind and solar could well have the ability to replace the power from Davis-Besse by 2017. This is another reason that the NRC must revisit the contention that renewables have the ability to replace the power generation of the Davis-Besse reactor.

The NRC has failed to acknowledge that the Davis-Besse reactor has been offline or at less than full power for a considerable amount of time since it first came online with no deleterious effects on the grid or on the supply of electricity to consumers. This takes into question the NRC's requirement that alternative sources cannot be considered unless they are online to replace every electron of Davis-Besse's full power by its 2017 license expiration date.

It is increasingly clear that a combination of wind, solar and efficiency could replace Davis-Besse by 2017. In addition to these, other alternative energy sources such as geothermal heating and cooling are increasing in popularity. The public is also undertaking an increasing number of conservation measures. The NRC has failed to keep up with the rapidly increasing ability of safer renewables technology and efficiency to supplant the need for the Davis-Besse reactor. For example, in 2014 a major new 300 KW wind farm was announced for Hardin and Logan Counties. The NRC must revisit intervenor contentions that the electricity generated by Davis-Besse can be replaced by the increasing amounts of renewables that are being adopted. Amory Lovins' and Arjun Makhijani have written articles and books on how ***both carbon and nuclear can be replaced nationwide with renewables by 2050***. Efficiency and a slowdown of the economy have resulted in a drop in electric demand. This confirms that trends of the past cannot be reliably extrapolated into the future. The concept of "base load" is also a relic of the past. Using the outdated standard of base load as a requirement for new technology and systems of the modern era fails innovation, retrenches outdated systems and gives a handicap to renewables. Centralized power sources, with unwieldy and unreliable grids, are a relic of the 20th Century. The nation is rapidly moving to more democratized, decentralized, and sustainable energy sourcing. New energy jobs are being created where people already are. These are clean, safe jobs where no one needs to wear radiation detection badges. It is imperative that the NRC revisit these considerations in any environmental impact statement.

Thank you.

Submitted for the Ohio Sierra Club Nuclear Free Committee by
Patricia A. Marida, chair