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Chief, Rules, Announcements, and Directives Branch

Mail Stop: TWB-05-B01M

**United States Nuclear Regulatory Commission** 

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My name is Keith Gunter, a concerned resident of Livonia, Michigan, who resides approximately 35 air miles from the Fermi nuclear power complex located near Monroe, Michigan. In the interests of openness and disclosure, I am the younger brother and brother-in-law of Paul and Linda Gunter of Beyond Nuclear in Takoma Park, Maryland. I am also one of a number of Launch Partners for the Beyond Nuclear organization.

My interest, concern, and activities regarding the multitude of issues surrounding nuclear power spans more than three decades. Due to Detroit Edison and DTE Energy's storied and controversial history with that technology (including the partial core melt at Fermi-1 on October 5, 1966; the turbine missile event at Fermi-2 on Christmas Day 1993 that ultimately resulted in the release of three million gallons of radioactive water into Lake Erie; and other outstanding safety-related issues), I am opposed to the construction and operation of a third reactor by DTE Energy.

NUREG 2105 is a forbidding document by its sheer volume to anyone except the most dedicated of citizen activists and professionals in the field of nuclear power. Is this by design with the intent of limiting and narrowing public participation in the process?

If DTE Energy has yet to make a final decision on whether or not to ultimately apply for a construction and operation permit for Fermi-3 (as maintained by its spokesperson at the December 15, 2011 public meeting), I am at a loss to understand why the company would engage in "Preconstruction Activities" (v 1, p 1.6) that would include destruction of 189 acres of habitat that includes some 34.5 acres of wetlands. DTE's December 15, 2011 proclamation notwithstanding, according to the Quarterly Nuclear Power Deployment summary dated October 2011: "DTE Energy has begun site preparation for its Fermi Unit 3 reactor next to the existing Unit 2 plant." In light of these seeming contradictions, it appears DTE is saying one thing and doing another.

The environmental impact (both radiological and thermal) of the routine operation of a proposed Fermi-3 (in addition to that of Fermi-2) is, in my opinion, no small matter. The vast preponderance of epidemiological scientific research indicates that there is no safe level threshold dosage for human exposure to ionizing radiation whether airborne or through groundwater. The addition of a water intake for a Fermi-3 reactor next to the intake of the existing Fermi-2 plant would be a substantial burden on the Lake Erie ecosystem: "Fermi-3 operations would result in an average consumptive use of approximately 7.6 billion gallons of Lake Erie water per year." (v 2, p. 10.9) "Unavoidable adverse impacts on aquatic ecology resources would include an increased potential for entrainment, impingement, and thermal loading to Lake Erie..."

The thermal shock imposed on aquatic life by routine operation of Fermi-3 could also create favorable conditions for invasive species (v 1, p 5.33). Phosphorus loading would precipitate formation of toxic algae and increased bio-accumulation of dioxins, PCBs, and mercury.

As substantial as the effects from construction and routine operation of Fermi-3 could be, they pale in comparison to the potential human and biospheric impact that would result in the event of a catastrophic accident at the site---just thirty miles from Detroit. Close proximity to one of the largest freshwater commercial fisheries in the world is a colossal risk, with the majority of commercial fishing occurring along the Canadian border (v 1, p. 2.82).

It is incomprehensible to me, especially in the wake of the ongoing Fukushima-Daiichi radiological calamity, that the United States Nuclear Commission could and would move forward to accept and approve NUREG 2105. If my understanding of the current situation is correct, DTE's proposed Fermi-3 ESBWR is the only one of six originally contemplated for construction that has not yet been cancelled. If that in fact is the case, it is my fervent hope that DTE will consult with, and follow the examples set by, the other utilities that considered and rejected the prospect of ESBWR construction and operation.

The U.S. NRC and the U.S. nuclear power industry have too many unresolved issues to justify approval of NUREG 2105. To name a few:

- 1) Existing reactors with the GE BWR Mark-1 design at Fermi-2 and elsewhere regarding the vent stack and pressure suppression containment
- 2) The extraordinary risk demonstrated by the existence of high-level radioactive waste spent fuel pools in elevated locations outside of primary containment structures without emergency backup power sources in the GE BWR design
- 3) The utter and complete failure by the U.S. government, the nuclear power industry, and the scientific establishment to adequately address the six decade conundrum of the long-term isolation of high-level radioactive waste represented by the \$10 billion hole in the ground known as Yucca Mountain in Nevada
- 4) Ongoing fire safety protection issues that have remained unresolved for decades.

The U.S. NRC has never denied a construction or operating licensing request by any U.S. electric utility. I am extremely concerned about the integrity and fairness of the licensing process itself, in addition to the potential environmental and economic impact of the existence of a Fermi-3 reactor. With a low-end price estimate that has been calculated at some \$10 billion, I find the acronym more than a little ironic.

In my opinion, that \$10 billion provided by DTE Energy ratepayers would be so much better spent by robust investment in wind farms located in Michigan's thumb area in tandem with solar energy, biomass, and comprehensive energy efficiency and conservation programs.

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Keith Gunter