

## **The Case for Shutting Down Fermi 2**

Nuclear power reactors are dirty, dangerous, and expensive boilers. Potentially the most flawed design among these monstrosities is the GE Mark1, and Fermi2 is the largest Mark1 in the world. With the same flawed design responsible for the continually unfolding disaster at the Fukushima Daiichi Nuclear Power Plant in Japan, Fermi2 poses the same threat level to the Great Lakes. Even when running within design parameters, Fermi2 releases dangerous chemical pollutants, emits harmful radiation, and relies on the extremely toxic nuclear fuel stream.

The Critical design vulnerabilities that make Fermi2 an inherent danger were famously revealed by whistleblowers Gregory C. Minor, Richard B. Hubbard, and Dale G. Bridenbaugh in 1976. As early as 1972 a safety official with the Atomic Energy Commission, Stephen H. Hanauer, warned the Mark1 had critical vulnerabilities in cooling and containment systems, and should be discontinued. These predictions were borne true March 11, 2011 with the catastrophic failure of the Fukushima Plant. True to the concerns expressed decades earlier, the reactor, in emergency shut down, lost emergency generator and grid power, lost control of reactor temperature, blew the containment structure, and melted the core, which is still uncontained to this day, and steadily leaking radiation.

Fermi2 has already had a major failure and release of radiation, on Christmas Day, 1993. The badly warped turbine's shaking had been causing seismic vibrations. The facility was operating at partial power for fear of a disaster and had an explosion when engineers tried to increase power output. 1.5 million gallons of radioactive, toxic water flooded the basement and damaged the emergency generators, only to be released into Lake Erie without treatment. Turbine shrapnel ripped through the 6-inch steel turbine case, damaging the building, and releasing an unregistered amount of radioactive, primary steam. After an extended outage, the plant was restarted with the same damaged turbine until a replacement could be built and installed.

Daily operations at Fermi2 are a toxic nightmare, even when operating as intended. Maintenance requires dozens of highly toxic, persistent, bioaccumulate pollutants. The entire Nuclear fuel stream is dangerous and dirty, from abandoned, unmitigated mines to unresolved waste storage issues. Hailed as a carbon free alternative to coal, citing the carbon free fission process, nuclear power is in fact a huge carbon emitter. Throughout the energy intensive nuclear fuel stream: mining, refining, processing, transportation, long term waste isolation, and building the necessary facilities, all emit carbon. An economic loser, Nuclear power relies heavily on subsidization, high rates, lacking regulation, and corrupt political cover. Nuclear power is too dangerous for commercial liability insurance, so it counts on the backing of taxpayers, thanks to the Price Anderson Nuclear Industries Indemnity Act.

Nuclear energy is a dead-end street. All reactors must be decommissioned and a moratorium preventing building additional reactors must be declared. A shift of subsidies from nuclear to green renewable energy will speed the transition and prevent further endangerment of human health.

By James Sherman, CRAFT Co-Chair

# The Mission of CRAFT

CRAFT, as a grassroots environmental organization, focuses on the future of energy and the safety of the earth, advocates for using current, unbiased science to determine national energy policy. CRAFT's globally pertinent efforts, regarding civilian nuclear energy issues, primarily focus locally on the Fermi-2 power station and its impacts on the waters of Lake Erie.

Concerning Fermi-2, CRAFT conducts five main program areas.

1. Building a knowledge base of energy, regulatory, legislative, and civilian nuclear data, trends, and current events.
2. Monitoring and reporting on Fermi-2
3. Engaging in regulatory intervention, including legal filings
4. Raising awareness of the dangers Fermi-2 poses through public events, direct action, communication pieces, and media platforms.
5. Promoting and educating on advantages of green renewable energy on which to power and employ Michigan forward.

Building organizational expertise since 1993, CRAFT has been following the issues revolving around Fermi-2. CRAFT is the lead advocate to hold regulators and the licensee accountable for mishandling of this dangerous facility.

Monitoring Fermi 2, CRAFT has a broad field of vision. From reporting on algae blooms and rising lake levels, through DTE filings with the MPSC, to NRC incident reports and recent findings of scientists, CRAFT has a valuable archive of information.

Engaging directly, CRAFT has depth of action. From working with municipal governing bodies through filling federal regulatory interventions with the NRC, and to coordinating stockholder resolutions with the licensee, DTE, CRAFT drafts and delivers a variety of documents.

Raising our profile, CRAFT engages yearly in public events and peaceful demonstrations. CRAFT is a yearly participant in the Monroe County Earth Day celebration as well as many public events, including hearings, concerts, Native American events like Pow-wows, environmental rallies, social justice marches, and grassroots mutual aid events.

Protecting Michigan from nuclear hazards and supporting a way forward in Michigan with a robust green renewable energy infrastructure requires that Michiganders demand action.

To this end, CRAFT employs a multitude of ways to inform the public, CRAFT's monthly newsletter is well-sourced and has a distribution of 2,000 mailings across many geographical miles.