

Fermi3CEm Resource

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**Comments/Contentions on
Draft Environmental Impact Statement for Combined License (COL) for
Enrico Fermi Unit 3
Report Number: NUREG-2105 Docket ID NRC-2008-0566**

January 11, 2012

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Nuclear Information and Resource Service (NIRS) is a nonprofit public interest organization based in the Washington, DC area with members throughout the country (and Canada) including in the vicinity of the Fermi nuclear reactors and proposed reactor unit 3. In addition to these comments we support those of local and Great Lakes regional organizations and individuals including those of Jesse Collins.

REQUESTING EXTENSION ON COMMENT AND COL NEW CONTENTION DEADLINES:

NIRS joins other commenters in the Fermi DEIS and interveners in the Construction and Operating Licensing (COL) application process in requesting a 60 to 90 day extension---from the date that the Biological Report on Fermi 3 becomes available--- on the comment period for this Draft Environmental Impact Statement and on deadline for additional contentions on the COL application for Fermi 3. The Biological Report underpins the assumptions made about the impacts discussed in the DEIS and is necessary for providing comments on many aspects of the DEIS. Please extend the comment period and contention deadlines. Failure to provide all necessary documents violates NEPA, the APA and common sense.

OPPOSITION TO FERMI 3

NIRS opposes the licensing of the proposed Fermi 3 Nuclear Power reactor for economic, environmental, health, safety, security, survival, land-use, democracy, human rights, and environmental justice reasons. We simply do not need more nuclear power, radioactive wastes and routine radioactive and hazardous emissions into the air, water, environment, food chain, soil, sediment, ecosystem and planetary systems. Nor do we need to put the health of the Great Lakes ecosystem at greater risk. There is nowhere for the nuclear waste to go, whether it is

stored for decades, centuries and beyond on the shores of Lake Erie or transported to other areas, it threatens precious resources—water, air, flora, fauna, communities, individuals in this and all future generations.

RADIATION WITHOUT REPRESENTATION

We are like the fabled “frogs in hot water” as we increase the amount of man-made ionizing radioactivity in our environment and food chain. Every step of the nuclear fuel chain releases radioactive and hazardous emissions regularly with inevitable “accidental” releases such as the continuing catastrophe at Fukushima which began ten months ago today releasing untold, unmonitored radioactivity and hazardous materials into the earth’s atmosphere, oceans, communities and the gene pools of all species. Not only have Three Mile Island, Chernobyl and Fukushima increased—and continue to increase – the radioactivity in the water, air, food and materials we rely on constantly for survival, but every reactor and every nuclear fuel chain (“cycle”) facility and all nuclear waste management and release from control emits radioactivity.

As decision makers ignore and obscure the continually increasing generation and release of radioactivity, denying its known and potentially-unknown-impacts on individuals, species and biosystems, irreversible changes are being made, and the politicians and “regulators” routinely shift all responsibility and liability from the profit-making polluters to the public, the commons, to random exposed individuals and targeted groups.

Radiation impacts women 50% more than men (NIRS paper attached) and children more than adults. There is no study even being carried out on synergistic effects of radioactivity and other stressors present in the environment and coming from nuclear reactors and fuel chain facilities. **These increased risks are not incorporated into the regulations that permit radioactive releases and prohibit challenge in site-specific licensing actions.** We call on NRC, DTE and the Army Corps of Engineers to now account for this newly released, previously known information on radiation risks to more vulnerable population groups –like women—more than half of the human population! Just like old reactor seismic design bases that were developed before the world knew about plate tectonics, radiation standards predate knowledge and additional uncertainties about disparate impacts on different sectors of the population. In fact NRC is not protecting us more with its latest “updates” which increase the allowable contamination levels for more than half the radionuclides listed. We say NO now to more radioactive exposure, release, and risk at every level.

EMERGENCY PLANNING

The DEIS fails to provide adequate information on how the population in the vicinity of the proposed Fermi 3 and existing Fermi 2 nuclear reactors, will be protected from major or minor accidental releases. Fermi 2 is a Mark 1 Boiling Water Reactor, like the Fukushima reactors, thus vulnerable and with an inadequate design basis. A clear lesson from Fukushima is that an accident at one reactor can involve others at the site. Thus even greater emergency planning is necessary for vicinity around the Fermi reactors.

The DEIS Volumes I and II, raise concerns pertaining to emergency planning but do not fully address them, making the EIS incomplete. Although emergency planning is reportedly detailed in separate documents created in conjunction with State, Local and Federal Agencies such as FEMA and the NRC, there are some emergency planning issues within Volume I.

For example, on page 5-126, in examining the fatalities relating to exposure, estimates of a population within 50 miles of the nuclear plant was used.

How does this correspond to the current emergency planning zone of 10 miles? Does this insinuate that an expansion of emergency planning should be made?

The DEIS needs to more fully describe how the population within 50 miles of the Fermi site will be protected.

From firsthand experience, emergency response is completely inadequate for Fermi 2, thus an additional reactor can only make the prospects more dangerous. During one "incident" involving a potential release from Fermi 2, we determined that ALL information came from the utility—all NRC, police, state and local emergency responders and media outlets were quoting and releasing only verbatim information from the utility, with no independent analysis or instructions. NIRS called the utility customer service number to learn what we could do more adequately respond to the numerous calls and questions we were receiving from the Monroe area, only to be told by the Detroit Edison representative that *there was no nuclear reactor at Fermi or in the Detroit or Monroe area so there could not be a nuclear accident, problem or release—to relax and forget about it!* We were never able to determine whether this was intentional misinformation or a completely uninformed staff person.

GROUNDWATER CONTAMINATION

On page 5-133 the DEIS discusses that risks of groundwater contamination are "small" and do not have a significant effect on overall plant risk. This is troubling considering that for many months concerns about ground water contamination have been pervasive during the ongoing Fukushima Dai-ichi disaster.

It also will increase the amount of radioactive waste to be managed and isolated if the situation gets under control enough to begin managing full scale clean up efforts.

RADIOACTIVE WASTE

Operation of nuclear reactors involves splitting large uranium atoms to make smaller radioactive atoms, some, like Iodine-129, which last for literally millions of years. (Half life of I-129 is 16 to 17 million years so it remains hazardous for 160 to 340 million years, 10 to 20 half lives.) These are present in both high level and so-called "low-level" radioactive waste. Despite NRC's "Waste Confidence Decision" which claims a disposal site will be available by 60 years after reactor closure, there is no high level or irradiated/spent fuel disposal site and all previous proposed sites were cancelled for technical reasons. Even NRC doesn't appear so confident—It is studying onsite storage at reactor sites for in the range of 300 years. Meanwhile the temporary dry casks are only designed for 50 years and have had technical problems from their inception, well before the 50 year design life. All the irradiated fuel of the nuclear age plus all the reprocessing waste from the failed commercial reprocessing and from weapons reprocessing in the US is waiting for some form of permanent isolation...a dream we all share.

Reprocessing must be completely ruled out as a management strategy for irradiated nuclear fuel. The commercial reprocessing of less than 1000 tons of irradiated fuel including some from Enrico Fermi 1 still threaten the other side of Lake Erie in West Valley NY. That nuclear waste site which has been closed since the mid 1970s is projected to cost in the range of \$9.7 BILLION to clean up.

So-called “low-level” radioactive waste is everything but the irradiated fuel and transuranics below ten or 100 nanocuries per gram. The amount could very well be greater than that assumed in the sacred Table S-3, which cannot be questioned and which was developed based on pre-mid 1970s information. Even if Table S-3 cannot be questioned legally, the DEIS should provide documentation to show that it still applies to today’s situation. One example of higher than expected volumes of waste is the unexpected but pervasive underground contamination of soil from leaking pipes at nearly all the US nuclear power stations.

Pages 6-14 to 6-17 are devoted to Radiological Wastes.

Detroit Edison clearly states that it sends Fermi 2 Class A “low-level” radioactive waste to a commercial disposal site in UTAH (EnergySolutions in Clive UT) but that the more concentrated Class B and C waste cannot go to the operating EnergySolutions disposal site at Barnwell. It cannot go to the US Ecology operated burial ground on the Hanford Reservation in Washington either although this is not mentioned. This would be the case for Fermi 3 (if those sites are still open then).

The plan is to store it until a disposal site is available. The Texas Waste Control Specialists site is cited as a possible option but this is very wishful thinking.

That site, licensed by the TX Commission on Environmental Quality (TCEQ) has very limited capacity...not even enough for the 2 compact member states (TX and VT) nuclear power and waste total projected capacities. Even if the Compact Commission approved and the site did begin taking out-of-compact waste, Fermi 3 would be behind the rest of the US nuclear power fleet in line to send waste there. Only nuclear generators in Washington, New Jersey, Connecticut and South Carolina have disposal capacity (in Wash and So Carolina) for their Class B and C “low-level” radioactive waste. Some of the operating reactors may be decommissioned before Fermi 3 starts up, vastly increasing the amount of waste needing disposal and potentially ahead of Fermi for access to the TX dump.

It should also be clearly stated that as of today Jan 11, 2011 Waste Control Specialists has not begun disposing of commercial “low-level” radioactive waste. The TX VT Compact rules regarding Waste Acceptance Criteria for out-of-compact waste have not been finalized. The TX legislature has placed limits on the amount of waste that can go to the site. The licensed capacity of the site is not enough for out of compact waste, especially into the years that Fermi 3 would open. Finally the out-of-compact generators would need to apply and cannot assume their waste would be accepted by the compact commission.

Mention was made (page 6-14 line 32) that third parties might “process, store, own and ...dispose of LLW from Fermi 3.” Those processors are currently expanding their businesses, attempting to import foreign nuclear waste, which could potentially compete for US waste space.

There are also legal limits [SB 1504 (now law in TX)] on the amount (volume and curies) of out-of- compact waste (if any) that can go to the Waste Control Specialists site.

Increased capacity cannot be assumed. The licensing was contentious: There was unanimous opposition to the licensing of the site by the state agency technical reviewers (concerned it did not protect the water), leading to 3 experts at the licensing agency leaving in disgust and opposition to the political reversal of the technical recommendation against licensing. There are still outstanding legal challenges to the license.

Climate change can affect the site. Water is an increasingly precious resource and can be expected to increase in value in the future. The TX disposal site (if it opens) is located in the vicinity of major aquifers (Ogallala, Edwards and others). Despite TX droughts, unusual changes could increase the water in the aquifers [such as recent snow] bringing them closer to the waste.

The Texas site is the only site to come close to opening after over 30 years of site searching involving states, compacts, private companies, some public interest groups and billions of dollars. The State of Michigan itself rejected a "low-level" radioactive waste site largely because of the threat to water. It is completely irresponsible and unsupported to assume there will be offsite disposal for Fermi 3's Class B and C "low-level" radioactive waste.

The State of Utah is on record opposing the "downblending" of Class B and C waste down to the less concentrated Class A levels in order to meet the criteria to enter the EnergySolutions dump in Utah. It is a matter of semantics whether it is a form of downblending to load the resins for a shorter time thus creating more Class A waste instead of Class C so it can go to the Utah dump. (This is one of the scenarios suggested in the DEIS for dispersing the radioactivity in more Class A less concentrated resins rather than fewer more concentrated/heavily loaded Class C resins. The resins clean the cooling water in the core of the reactor and before it is discharged into public waterways.)

Tennesseans are calling for greater accountability for the nuclear waste processors which are suggested (p 6-14) in the DEIS might take the waste. Tennessee Dept of Environment and Conservation limits storage at its processors to 1 year. In specific cases, after a year the waste could be returned to the generator if no disposal site is found.

So the nuclear waste shell game continues with a very serious and undeveloped scenario that the Fermi site becomes a de-facto permanent nuclear waste site for both high and so called "low-level" radioactive waste.

Detroit Edison's plan to store Class A waste for 3 months and Class B and C for up to 10 years is irresponsible and lacking in detail to show it would comply with worker and public exposure limits.

There is no plan on involving the public if no disposal becomes available and additional storage capacity must be built. The potential location is mentioned, near the reactor but it is not sketched out nor are secondary limits (on the total amount of waste in onsite storage) described. At what point does the public have the ability to address the increased storage?

Historically, the NRC changed its own regulations, without any public input, allowing nuclear power reactor operators to store unlimited "low-level" waste without even keeping track of it. There is still no public reporting of what is generated and stored at reactors. More recently the NRC, Nuclear Energy Institute and the nuclear power generators wrote up some guidance documents about how they would shift the waste around under various scenarios. This does not mean there is a way to isolate that waste from the environment, the workers, and the public. That problem is not answered in the DEIS in violation of NEPA, the APA and AEA. The long term price tag is potential permanent storage and management of nuclear waste and the reactor itself at the Fermi 3 nuclear power reactor site. Precautionary principles must be applied. Prevent the generation of the nuclear waste in the first place. Build some wind mills. No Fermi 3.