Fermi3CEm Resource

From: christy anderson [christy914@sbcglobal.net]
Sent: Tuesday, January 10, 2012 7:42 PM
To: Fermi3COLEIS Resource
Cc: archiebird@excite.com
Subject: Docket ID NRC-2008-0566; Public Comment Fermi 3
Attachments: public comment fermi 3.docx

Attached is my public comment concerning Fermi 3.
Will you please verify that this comment has been received? Thank you,
Christy Anderson
christy914@sbcglobal.net
(734) 654-0693

Federal Register Notice: 76FR66998
Comment Number: 26

Mail Envelope Properties (1326242541.22023.YahooMailClassic)

Subject: Docket ID NRC-2008-0566; Public Comment Fermi 3
Sent Date: 1/10/2012 7:42:21 PM
Received Date: 1/10/2012 7:42:27 PM
From: christy anderson

Created By: christy914@sbcglobal.net

Recipients:
"archiebird@excite.com" <archiebird@excite.com>
Tracking Status: None
"Fermi3COLEIS Resource" <Fermi3COLEIS.Resource@nrc.gov>
Tracking Status: None

Post Office: web82305.mail.mud.yahoo.com

Files	Size	Date & Time
MESSAGE	228	1/10/2012 7:42:27 PM
public comment fermi 3.docx	54889	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

As a mother of 3 young boys I want to start by saying that my first and foremost concern is the safety of my kids. I've had no legal training, no political experience, and no dealings with government other than paying taxes. There are several concerns that I have with the building of a third reactor in our hometown but my main concern first and foremost is that the Fermi 3 Environmental Impact Study (F3EIS) is deficient and obsolete for several reasons.

1. F3EIS does NOT address climate change. The F3EIS fails to identify and consider direct, indirect, and cumulative impingement/entrainment and chemical and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources in the event of a catastrophic/cataclysmic event. A new reactor built today or one that was built 20 or 30 years ago does not make it able to handle what is ahead for the NEXT 20 or 30 years in regard to climate change. The F3EIS is a severely deficient report in the sense that it does not address adequately the possibility of cataclysmic or volatile weather changes that can happen overnight, spontaneously or within a few short days.
2. The EIS is deficient because it does not take into account the environmental impact of the human condition which is prone to error.
3. The EIS is deficient because it doesn't take into account the environmental impact of poor regulatory policy. (regulatory capture or deep capture).
4. The EIS is deficient because it doesn't take into account the environmental impact of poor or defective materials such as concrete or steel and the effect it can have on a facility.
5. The EIS is deficient and obsolete because it does not take into account the lessons learned from the Fukushima disaster. Because the F3EIS has not had sufficient time to address or implement any of the the Obama Administration's appointed "Task Force" findings (as a result of the Fukushima disaster) it does not make a nuclear facility safer post Fukushima. The F3EIS (which takes years in the making) was completed within days of the actual Fukushima disaster.
6. The EIS as written is deficient in its details of the environmental impacts of past Fermi 1 and 2 performance including accidents which resulted in 'hot shutdowns' radioactive spillage, employee mishandlings, safety record and ' lack of proper public disclosure. The latter allows the public to question the ability to trust a facility as it's track record and past performances ARE indicators of future performance.
7. The USACE has not shown public NEED for more nuclear power in Michigan. More and more coal plants are NOT being built or are being shut down as a result of lower customer power usage and lower demand. http://www.eia.gov/forecasts/aeo/index.cfm The EIS has not adequately resolved conflicts or addressed resource use, the practicability of using practicable and reasonable alternative locations AND/OR METHODS to accomplish the objective of proposed structure. The F3EIS has not demonstrated how natural gas can fulfill the projected energy needs as a reliable source of base load power. I will address each of these topics individually. They are highlighted in yellow, but first…

Recently, Mr.Greg Jaczko, Chairman of the NRC recently stated that, "He wasn't ready to declare a decline in safety performance at US plants but problems were serious to indicate a 'precursor' to performance decline. http://www.manufacturing.net/news/2011/12/nrc-nuke-industry-must-heed-

lesson-of-japan Also, "instances of human error and other problems have endangered workers and threatened safety at a handful of at least 65 of the 104 operating nuclear power plants in the United States". (Excuse the acronym but WTF does "precursor to a performance decline" mean)? Would a good example of human error or employee mishandling at Fermi be this? http://michiganmessenger.com/53564/fermi-guard-shoots-his-own-foot I guess they're overpaying those $8 security guards now aren't they? So much for inspiring public confidence.

Also, Mr. Jaczko said he's noticed an increase in 'possible declines in performance' at some facilities including instances that have exposed workers to high levels of radiation such as what happened at incidents at Cooper Nuclear Station in Nebraska and Perry Nuclear Power Plant in Ohio which "almost led to workers getting very, very significant doses" of radiation. While three other plants were shut down for months because of safety problems, the first time in more than a decade that several plants have been shut down at the same time. http://pbadupws.nrc.gov/docs/ML1110/ML111020025.pdf

http://www.google.com/url?sa=t&rct=j&q=precursor%20to%20a%20performanc%20decline&source=web&cd=1&sqi=2&ved=0CCMQFjAA&url=http%3A%2F%2Freadersupportednews.org%2Fnews-section2%2F312-16%2F8789-nrc-chief-nuke-industry-must-heed-lesson-of-japan&ei=2dIMT_anG6SksQKiqOiABg&usg=AFQjCNHE6Zj82z1rjTTF_3WIp6JVSJ6ReA

Also see: http://www.nrc.gov/reading-rm/doc-collections/event-status/prelim-notice/2011/

In October 2011 Mr. Jaczko, also described "a tension between wanting to move in a timely manner on regulatory questions, and not wanting to go too fast" In November 2011, U.S. Nuclear Regulatory Commissioner Gregory Jaczko warned power companies against complacency and said the agency must "push ahead with new rules prompted by a nuclear crisis in Japan while also resolving long-running issues involving fire protection and a new analysis of earthquake risks**." The new safety standards will take up to five years to fully implement**. (My emphasis) http://thehill.com/blogs/e2-wire/e2-wire/188767-federal-regulators-agree-to-implement-tighter-nuclear-standards and http://files.asme.org/asmeorg/NewsPublicPolicy/GovRelations/PublicPolicyAgenda/30117.pdf

More recently the NRC has been accused of doing an inadequate job by the Union of Concerned Scientists. On March 17, 2011, the Union of Concerned Scientists (UCS) released a study critical of the NRC's 2010 performance as a regulator. The UCS said that over the years, it had found the NRC's enforcement of safety rules has not been "timely, consistent, or effective" and it cited 14 "near-misses" at U.S. plants in 2010 alone. http://www.washingtonpost.com/business/economy/democrats-step-up-pressure-on-nuclear-regulators-over-disaster-preparedness/2011/03/17/ABLd66n_story.html

So let's be perfectly clear here because we HAVE to get this right. The Chairman of the NRC and David Lochbaum from the Union of Concerned Scientists have repeatedly questioned the safety of nuclear plants in the US including the Fukushima *Plant's general Electric Mark 1 reactor design (that is also a quarter of the US' nuclear fleet*.) That, along with a WHOLE host of other nuclear watchdogs, whistleblowers, industry people and regulatory people(which are too long to list here http://files.asme.org/asmeorg/NewsPublicPolicy/GovRelations/PublicPolicyAgenda/30117.pdf) are critical of current nuclear policy but the USACE and NRC have produced an EIS that the people of

Monroe are expected to be satisfied with. The F3EIS addresses **some** safety and technical points but doesn't sufficiently address even the 'experts in the fields' concern? Some of these standard's deficiencies will take years upon years to implement and the current F3EIS has not even acknowledged them in light of the latest disaster.

1. F3EIS does NOT address climate change in light of the latest nuclear disaster. The FE3EIS in its current form does not address safety concerns in regard to natural resources, people, or property in the event of a catastrophic/cataclysmic event. A new reactor, or one that was built 20 or 30 years ago does not make it able to handle what is ahead for the NEXT 20 or 30 years in regard to climate change. The F3EIS is a severely deficient report in the sense that it does not adequately address climate change with the possibility of cataclysmic or volatile weather changes that can happen overnight, spontaneously or within a few short days. The F3EIS fails to identify and consider direct, indirect, and cumulative impingement/entrainment and chemical and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources in the event of such a climatic event.
   An example of this is the Nebraska Fort Calhoun facility. Currently, this facility has declared a Notification of Unusual Event (minimal level on a 4 level taxonomy) as required by Nuclear Regulatory Commission guidelines. Apparently, extreme flooding was not accounted for when this reactor was built. Nuclear safety rules in the United States do not adequately weigh the risk of a single catastrophic event such as flooding. A flood assessment performed by the Nuclear Regulatory Commission in 2010 indicated that the Fort Calhoun Nuclear Generating Station, "did not have adequate procedures to protect the intake structure and auxiliary building against external flooding events." The assessment also indicated that the facility was not adequately prepared for a "worst-case" flooding scenario.
   http://pbadupws.nrc.gov/docs/ML1113/ML111370123.pdf A report was prepared and presented to the facility A YEAR IN ADVANCE but nothing was ever done to ensure it was acted upon. A perfect case of the fox watching the hen house! Not only are old Nuclear facilities unprepared for "Black Swan events" due to climate change the NRC, USACE and Nuclear industry can't even be counted on to enforce these safety reports presented to these facilities! A black swan event is a rare event that has HUGE repercussions. A rare event – especially one that has never occurred – is difficult to foresee, expensive to plan for and easy to discount with statistics. Just because something is only supposed to happen every 10,000 years does not mean that it will not happen tomorrow. Over the typical 40-year life of a plant, assumptions can also change, as they did on September 11, 2001, in August 2005 when Hurricane Katrina struck, and in March after Fukushima. If nuclear energy is necessary, then these bodies of people must ENSURE that facilities can cope with extreme natural events NO MATTER HOW UNLIKELY.

2. Another example of a nuclear plant not being able to withstand cataclysmic events is the Dominion Virginia Power Plant, when it informed the NRC that "the ground motion produced by the 5.8 magnitude quake "may have exceeded" the amount of shaking the plant was designed to withstand" and "During the quake, 36 "scratch plates" at the facility recorded ground motion in three dimensions and the plant **may have exceeded design basis for ground-force**

acceleration . Dominion said on the day of the quake that the plant would be safe up to a magnitude 6.2 earthquake. But the amount of shaking such a quake produces varies with distance to the epicenter, depth, and the type of rock the quake occurs in. The other onsite reactor in North Anna, VA scrammed. The other reactor SCRAMMED when the earthquake made the reactor lose offsite power. The NEIS comment: "The Fukushima nuclear disaster in Japan is also viewed as being caused by the "loss of offsite power," coupled with the failure of all available back-up power generation systems onsite. As such it is a serious problem; and was extensively addressed in the July 12th Report from the special NRC 90-day study group on the Fukushima lessons learned. It remains a major source of concern at U.S. reactors as well." Which leads many concerned citizens to question the F3EIS. What are the depths and the type of rock the F3 reactor will be built upon and is it condusive to withstanding seismic activity with an epicenter from an earthquake in very close proximity of the facility? How is John Q. Public supposed to trust or consider an obsolete 800 page report such as proposed by the F3EIS? Perhaps a facility that cannot ensure the public safety in the event of a black swan event should be postponed until it CAN ensure public safety or worst case scenario, NOT be built at all. According to the F3EIS, "The NRC considers alternatives to a proposed action including NO ACTION."

FYI— Monroe County, Washtenaw County and Lenawee counties ALL have had RECORD rainfall and flooding along with some of the highest bouts of severe weather the area has EVER seen with record insurance claims in the last year. Also, Natural disasters in 2011 exerted the costliest toll in history — a whopping $380 billion worth of losses from earthquakes, floods, tornadoes, hurricanes, wildfires, tsunamis and more. Only a third of those costs were covered by insurance. And the tally ignores completely any expenses associated with sickness or injuries triggered by the disasters.

1. http://www.lenconnect.com/news/x1896018744/County-getting-sand-bags-after-record-floods Lenawee county record breaking flooding in 2011.

2. http://www.google.com/url?sa=t&rct=j&q=washtenaw%20record%20rainfall%202011&source=web&cd=1&ved=0CDMQFjAA&url=http%3A%2F%2Fannarbor.com%2Fnews%2F2011-is-now-the-wettest-spring-on-record-in-ann-arbor-flood-warning-still-in-effect-more-rain-expect%2F&ei=iFoIT--eFYOmgwfu_73BDA&usg=AFQjCNGBrWqWzJg13D4Gd6qzGFv2k6r90w Washtenaw record breaking rainfall in 2011.

3. http://www.google.com/url?sa=t&rct=j&q=scientific%20american%20noaa%20most%20extrememe%202011%20weather&source=web&cd=1&sqi=2&ved=0CCMQFjAA&url=http%3A%2F%2Fwww.scientificamerican.com%2Farticle.cfm%3Fid%3Dnoaa-makes-2011-most-extreme-weather-year&ei=kFUIT_HbLcPn0QHmhKmcAg&usg=AFQjCNGIGeMMar-XJZqazCl8plVPi0ECBA 2011 most extreme weather year in history.

4. http://www.google.com/url?sa=t&rct=j&q=ndrc%20extreme%20weather&source=web&cd=2&sqi=2&ved=0CCQQFjAB&url=http%3A%2F%2Fwww.nrdc.org%2Fglobalwarming%2F&ei=HlYIT6S0JuLc0QHN1O3UAQ&usg=AFQjCNHoWdqeEJ0QPJSXelFfY7IdqK3z2Q A study found

that more than 1,100 counties -- one-third of all counties in the lower 48 -- will face higher risks of water shortages by mid-century as the result of global warming.

Another example. Calvert Cliffs nuclear facility in Maryland where hurricane Irene shorted a transformer and the power loss caused it's reactor to scram.
http://www.google.com/url?sa=t&rct=j&q=clavart%20cliffs%20hurrican%20irene&source=web&cd=2&ved=0CCkQtwIwAQ&url=http%3A%2F%2Fwww.abc2news.com%2Fdpp%2Fnews%2Fregion%2Feastern_shore%2Fhurricane-irene-knocked-a-nuclear-reactor-offline-at-calvert-cliffs&ei=s64MT-OwIYeA2QXqsajVBw&usg=AFQjCNE0S3B_4zSnaIYZ_8JqzpgNx7hz8A
Although the reactor did what it was supposed to, it was hit with hurricane force winds.

II. The EIS is deficient because it does not take into account the environmental impact of the human condition which is prone to error. Such was the case at Michigan's own Palisades plant. The U.S. Nuclear Regulatory Commission says a week-long shut-down of the Palisades Nuclear Power Plant in September was of "substantial safety significance." The plant is located in South Haven about 55 miles southwest of Grand Rapids.
The plant was offline because of an electrical outage at the plant. The NRC investigation shows the outage happened because a worker didn't follow proper procedures when he was doing routine maintenance.
As usual the NRC spokeswoman Victoria Midlyng seriously downplays the event and says the procedures the worker was supposed to follow were improper anyway. And she says managers at the plant had given that worker the green light to do things differently.
"Nobody took the time to really focus on the safety significance of this activity," Midlyng said, "Nobody stopped in their tracks and said 'hey, what are we doing here? We need to rethink this.'" http://michiganradio.org/post/investigation-shows-event-palisades-nuclear-plant-was-substantial-safety-significance

Another example of a nuclear 'accident' as a result of human error and lack of oversight is the Vermont Yankee Nuclear Reactor resulting in radioactive leakage tritium into the Connecticut River. The two root causes as stated from the Vermont Dept. of Health are:

•Inadequate construction and housekeeping practices employed when the AOG Building was constructed in the late 1960s and early 1970s, and when the AOG drain line was added in 1978.

•Ineffective monitoring and inspection of vulnerable structures, systems and components that eventually leaked radioactive materials into the environment.
http://healthvermont.gov/enviro/rad/yankee/tritium_root_cause_analysis.aspx

Here is another example of how John Q. Public is supposed to have 100% complete trust in our government regulatory bodies, worker competence, the nuclear industry itself, and the USACE. This policy of industry self-regulation is failing, and has failed us in the past, present and

unfortunately into the future. Although there was no major fallout from this potential disaster, dilution is NOT the solution! There are no SMALL accidents when it comes to nuclear plants!

III. The EIS is deficient because it doesn't take into account the environmental impact of poor regulatory policy which includes regulatory capture, deep capture, and the Japanese term 'soteigai' all of which invite public distrust and possible disaster.

Soteigai was a term used in one of the reports prepared for government and public awareness after the Fukushima disaster. Soteigai means "outside our imagination," which the report said, "implied authorities were shirking responsibility for what had happened. The report said by labeling the events as beyond what could have been expected, officials had invited public distrust." http://www.washingtonpost.com/world/asia-pacific/japan-investigation-finds-nuclear-disaster-response-riddled-with-problems/2011/12/26/gIQA7kqNIP_story.html

Frank N. von Hippel, Professor and Co-Director, Program on Science and Global Security, states: "Nuclear power is a textbook example of the problem of "regulatory capture" —It is a form of government failure in which an industry gains control of an agency meant to regulate it. Regulatory capture can be countered only by vigorous public scrutiny and Congressional oversight, but in the 32 years since Three Mile Island, interest in nuclear regulation has declined precipitously."

Then-candidate Barack Obama said in 2007 that the five-member NRC had become "captive of the industries that it regulates" and Joe Biden indicated he had absolutely no confidence in the agency.

Regulatory capture occurs because groups or individuals with a high-stakes interest in the outcome of policy or regulatory decisions can be expected to focus their resources and energies in attempting to gain the policy outcomes they prefer, while members of the public, each with only a tiny individual stake in the outcome, will ignore it altogether.

Likelihood of regulatory capture is a risk to which an agency is exposed by its very nature. This suggests that a regulatory agency should be protected from outside influence as much as possible. Alternatively, it may be better to not create a given agency at all lest the agency become victim, in which case it may serve its regulated subjects rather than those whom the agency was designed to protect. A captured regulatory agency is often worse than no regulation, because it wields the authority of government **or can ignore** the authority it wields.

A perfect example of regulatory capture (or sheer negligence) in our own backyard would be this: The Nuclear Regulatory Commission has violated the Administrative Procedures Act through improper notification of the public with regards to modifications of the Fermi 2 license as it pertains to storage of high level nuclear waste on the shores of Lake Erie. Site Specific concerns have been raised by the Interveners which provide an "Opportunity for Hearing", but

the public was not properly notified. Hmmmm…a mere oversight by a government regulatory agency with an outcome that just so-happens to favor private industry? Deep capture is a phenomenon that extends beyond just political agencies and organizations. Businesses have an incentive to control anything that has power over them, including institutions from the media to academia to popular culture, and thus will try to capture them as well. They call this phenomenon "**deep capture**".

The NRC has given a license to every single reactor requesting one, prompting Greenpeace USA nuclear policy analyst Jim Riccio to refer to the agency approval process as a "rubber stamp". In Vermont, ten days after the 2011 Tōhoku earthquake and tsunami that damaged Japan's Daiichi plant in Fukushima, **the NRC approved a 20-year extension for the license** of Vermont Yankee Nuclear Power Plant, although the **Vermont state legislature had voted overwhelmingly to deny such an extension**. The Vermont plant uses the same GE Mark 1 reactor design as the Fukushima Daiichi plant. The plant had been found to be leaking radioactive materials through a network of underground pipes, which Entergy, the company running the plant, had denied under oath even existed. Representative Tony Klein, who chaired the Vermont House Natural Resources and Energy Committee, said that when he asked the NRC about the pipes at a hearing in 2009, the **NRC didn't know about their existence**, much less that they were leaking. On March 17, 2011, the Union of Concerned Scientists (UCS) released a study critical of the NRC's 2010 performance as a regulator. The UCS said that through the years, it had found the **NRC's enforcement of safety rules has not been "timely, consistent, or effective**" and it cited 14 "near-misses" at U.S. plants in 2010 alone Tyson Slocum, an energy expert at Public Citizen said the nuclear industry has "embedded itself in the political establishment" through "reliable friends from George Bush to Barack Obama", that the government "**has really just become cheerleaders for the industry."**
http://en.wikipedia.org/wiki/Regulatory_capture#Nuclear_Regulatory_Commission_.28NRC.29

There have also been instances of a revolving door. Jeffrey Merrifield, who was on the NRC from 1997 to 2008 and was appointed by presidents Clinton and Bush, left the NRC to take an executive position at The Shaw Group, which has a nuclear division regulated by the NRC.

A year-long Associated Press (AP) investigation showed that the NRC, working with the industry, has relaxed regulations so that aging reactors can remain in operation. The AP found that wear and tear of plants, such as clogged lines, cracked parts, leaky seals, rust and other deterioration resulted in 26 alerts about emerging safety problems and may have been a factor in 113 of the 226 alerts issued by the NRC between 2005 and June 2011. The NRC repeatedly granted the industry permission to delay repairs and problems often grew worse before they were fixed.
http://en.wikipedia.org/wiki/Regulatory_capture#Nuclear_Regulatory_Commission_.28NRC.29

IV. The EIS is deficient because it doesn't take into account the environmental impact of poor or defective materials such as concrete or steel and the effect it can have on a facility. Examples of this include the New Hampshire Seabrook Nuclear Reactor and the Michigan Palisades plant

shutdown. “A recent investigation by the Nuclear Regulatory Commission found that the failure of a water pump due to the corrosion of certain kinds of stainless steel components caused an August 2011 shutdown of the Palisades nuclear power plant in Covert, Michigan.” “Despite scientific findings and industry experience reporting its vulnerability to cracks and corrosion, the types of stainless steel –known as 410SS and 416SS – continues to be used in water pumps used to provide cooling water to critical safety-related equipment, diesel generators, and containment vessel air coolers for nuclear power plants throughout the U.S. http://robertsingleton.wordpress.com/2011/12/03/nrc-warns-nukes-of-dangers-of-bad-steel-crumbling-concrete/

What type of stainless steel will Fermi 3 use in the GEH ESBWR water pumps, diesel generators, containment vessels air coolers and component cooling water vessels? This steel is prone to corrosiveness, yet it was still used and not replaced and Palisades had to shut down because of it. How is John Q. Public supposed to take government regulatory agencies, the nuclear industry and the USACE at face value when they all state they have our safety and best interests in mind? The F3EIS doesn’t provide peace of mind to John Q. Public and neither does the agencies and industry’s ‘bad material usage’ policy.

V. The EIS is deficient and obsolete because it does not take into account ANY of the lessons learned from the Fukushima disaster. Because the F3EIS has not had sufficient time to address any of the the Obama Administration’s appointed “Task Force” findings (as a result of the Fukushima disaster) it does not make a nuclear facility safer post Fukushima. The F3EIS (which takes years in the making) was completed within days of the actual Fukushima disaster.

Experts around the world are increasingly turning their attention to the lessons learned from the accident and its implications for nuclear power in their respective countries. From the Natural Resource Defense Council (NRDC):

“On July 12, 2011 the US Nuclear Regulatory Commission (NRC) issued its report: “Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident.” http://pbadupws.nrc.gov/docs/ML1118/ML111861807.pdf

This report summarizes the results of a swift “90 Day Review” of US reactor safety that the NRC pledged to conduct in response to President’s Obama’s request to review the safety of all operational reactors in the US commercial fleet, a request which the President made to the NRC in the early, frightening days of the Japanese disaster.

The Task Force’s first overarching recommendation is a remarkably strong criticism of the current regulatory framework: “The Task Force recommends establishing a logical, systematic, and coherent regulatory framework for adequate protection that appropriately balances defense-in-depth and risk considerations.” The implied premise of this primary recommendation

– that the current NRC regulatory framework falls short of being "logical, systematic or coherent" – suggests the public should not have high confidence in the safety of the 104 currently-operating nuclear power plants in the United States**. The 90 Day Review summarizes disturbing problems with the effectiveness of the NRC's efforts to minimize nuclear accident risks stemming from seismic hazards, flooding and fires, station blackout, hydrogen gas production, the vulnerability of spent fuel pools and multi-unit accidents**.

Despite overarching recommendations aimed at "Ensuring Protection," "Enhancing Mitigation," and "Strengthening Emergency Preparedness," the Task Force nonetheless, asserts that **business as usual** should continue at US nuclear power plants during what will be a lengthy and uncertain regulatory overhaul.

To the contrary, lessons learned from the Fukushima Dai-ichi accident warrant immediate regulatory responses and enforcement actions, particularly regarding the 31 US reactors of similar design to those in Japan that underwent core melt and explosions– the 23 US BWRs with Mark I containment and the 8 with Mark II containments.

In addition**, NRC consideration of power up-rates and license extensions for operational US reactors should be held in abeyance until the full lessons of Fukushima have been absorbed**, the feasibility of all necessary safety upgrades demonstrated, and then these upgrades mandated for each reactor involved in a power up-rate or license extension proceeding. As part of these processes, the likelihood of successful evacuation, the potential economic consequences, and the effect of off-site radiological contamination must be assessed, particularly for US reactors whose surrounding population density (within a 50-mile radius) is comparable to, or larger than, that at Fukushima Dai-ichi. Where prompt large-scale evacuation appears infeasible in the face of radiological consequences, or intolerable levels of economic damage may result, license extensions and power up-rates must be denied and the reactors phased out.

NRDC notes that during the 90 Day Review the Task Force consulted with the nuclear industry but there was an **absence of any meaningful consultation with other outside experts or the public**. (curious, why is that?) In moving forward to the next "six month" stage of the post-Fukushima nuclear safety review, the extent of outside involvement remains unclear. On July 15, 2011, NRDC was contacted by the NRC about possible involvement on an external stakeholder panel for the six month review. While we need substantially more information to make any judgment on the adequacy of what the NRC has in mind, extensive public participation must be an intrinsic part of the next stage of the review.

NRDC has previously suggested that the NRC direct the Staff to document, for each of the 104 operational reactors, all deviations and exemptions from the current "best practices" as set forth in the most up-to-date regulations, regulatory guides, standard review plans, information bulletins and the like, including exemptions from license conditions granted pursuant to 10 CFR

§50.12. By providing this information prior to the onset of the longer-term review, and seeking initial public comment on the scope of its six-month review, the NRC would be promoting a far less insular approach than what was practiced in the initial 90-day review. If we are to improve the safety of existing nuclear power plants, following the Japanese disaster and a reinvigorated US inspection effort, understanding and precisely documenting those variances and exemptions from current best practices will be a critical element, especially in terms of public transparency and accountability for the NRC's future enforcement efforts.

The Task Force explicitly states that "the NRC's approach is incomplete without a strong program for dealing with the unexpected, including severe accidents. Moreover, this group states that the NRC has established severe accident requirements for new reactors, and that taking a similar action with regard to operating reactors would promote increased safety. Nonetheless, the recommendations in certain instances could remain just that, with others possibly being implemented in rulemaking efforts **that could take years to resolve.**

Following the events at Fukushima Dai-ichi, the historical frequency of core melt accidents worldwide does not measure up to the safety objectives of the NRC. On the whole, today's aging operational nuclear reactors are not sufficiently safe. If nuclear power is to have a long term future, older obsolete reactor designs should be phased out rather than having their licenses extended, and the NRC should revisit whether reactors currently under construction and those on the drawing board are safe enough. The 90 Day Review is a first step in this direction, but a lot of work lies ahead.**http://switchboard.nrdc.org/blogs/cpaine/nrc_task_force_on_fukushima_a.html**

VI. The EIS as written is deficient in its details of the environmental and health impacts of past Fermi 1 and 2 performance. It also neglects to mention incidents of increased cancer rates among people in the area. Some of the past Fermi reactor accidents resulted in core meltdowns, 'hot shutdowns,' radioactive spillage, employee mishandlings and incompetence, safety record and lack of proper public disclosure. The latter allows the public to question the ability to trust a facility as it's track record and past performances ARE indicators of future performance.

1. On Wednesday, Dec. 1, 2011 the Fermi 2 nuclear power plant in Monroe, Michigan experienced **radioactive floodwaters pouring through walls and ceilings** and standing one to two inches deep in plant buildings. This happened when a waste water holding tank valve stuck open, causing the tank to overflow. A half dozen workers' shoes and clothes were saturated by the radioactive water. Although Detroit Edison officials were quick to say "no radiation dose" was suffered by any workers, this simply cannot be the truth, as tritium (radioactive hydrogen), almost certain to have been in the radioactive water, can pass through human skin. Thus, the workers' radiation dose was more than zero. And although NRC, as is its habit, downplayed any radiological risk to the public, the fact that at least 100 gallons of the radioactive water did reach the Monroe County sewer system and water treatment plant means that at least some radioactivity was discharged into Lake

Erie. Again, the radiation release to the environment, and potential for radiation doses to members of the public, although diluted and perhaps small, is greater than zero. As Dr. Rosalie Bertell has said, "Dilution is not the solution to radioactive pollution!" DTE Energy's website has yet to publicly report the incident at its reactor. And although the story appeared in the small local Monroe Evening News, it has yet to be picked up by any large circulation US newspapers or television news programs. Only 100 gallons? Yeah. Right. It could be 10,000 gallons for all we know. http://www.beyondnuclear.org/tritium/ In February of 2011, After being idled for repairs for two weeks, the Fermi 2 reactor of the Enrico Fermi Nuclear Generating Station was restarted Thursday night and then shut down again Saturday due to discovery that condenser tubes were leaking, the Monroe Evening News reported. After two weeks of repairs at the Fermi 2 plant the reactor was launched on Thursday evening only to be shut down again on Saturday due to a leak in the condenser tubes? http://www.google.com/url?sa=t&rct=j&q=fermi%20idled%20again%20after%202%20weeks%20of%20repair&source=web&cd=8&ved=0CEoQFjAH&url=http%3A%2F%2Fwww.monroenews.com%2Fapps%2Fpbcs.dll%2Farticle%3FAID%3D%2F20110211%2FNEWS01%2F702119977&ei=X7UMT8mdCdL3gAeS6Ym2Bw&usg=AFQjCNFJ2KpdyRMCrMRjSjIL4MT_heXz0g The DTE site features the words of Senior Vice President and Chief Nuclear Officer Jack Davis, who reports that: "Fermi 2 has been providing reliable, cost-effective power to the 2.2 million electric customers of Detroit Edison in Southeast Michigan for more than 20 years. The plant also has been designated as one of the nation's best-performing nuclear facilities….Oy. If this is one of the safest and cleanest what the heck do the other ones look like?!

2. The US Nuclear Regulatory Commission Current Power Reactor Status Report for February 11, 2011, listed the reactor as operating at 2 percent of 100 percent capacity. No one could be reached at the facility had any direct knowledge of the event, and responsible parties could not return telephone calls. Hmmm…wonder why? http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/ps.html
3. On June 6, 2010 Fermi was hit by **a small Tornado**.(Pardon the acronym again, but WTF is a small tornado? Is that like the oxymoron, jumbo shrimp? (None the less, it IS a tornado) Causing damage to the outside building and forcing it to **scram**.
4. The Fermi 1 reactor experienced a serious emergency on October 5, 1966 – a **partial core meltdown**. After attempts to repair it, the reactor was completely shut down in 1975. Only a core meltdown folks, nothing to see here. Move along….
5. 1993: Merry Christmas! A radioactive spillage accident and fire are blamed on a turbine blade that snapped off and smashed through its protective casing. But it only took a year to clean up a **million gallons** of radioactive water released into Lake Erie by the accident and repair the turbine. Not a good way to start off the New Year is it though?

6. An incident involving a nuclear reactor going into **"hot shutdown**" at DTE Energy's Fermi II power generation station in Monroe County In March 2011 went largely unnoticed locally and is raising questions about what exactly happened at the plant. DTE officials have minimized the incident, stressing that it's dangerous to make assumptions about the safety of the reactor **after high vibrations from a bearing in the plant's main turbine caused operators to manually switch the reactor into shutdown.**
   According to a report by the plant to the Nuclear Regulatory Commission, the 1,100 megawatt boiling water reactor was operating at 23-percent power on March 28 when at 1:46 a.m. the shutdown began. The plant was running at the reduced power level as part of a ramping down of operations in advance of a planned shutdown for refueling and maintenance.
   "The cause of the high main turbine vibrations is currently under investigation," according to the report. "There was no maintenance or testing in progress that would explain the high turbine vibration levels. "The report went on to state that the **lowest reactor water level reached during the incident was 162 inches**, and "[a]ll isolations and actuations for reactor vessel water level 3 occurred ."As you shut down the reactor quickly the pressure becomes higher and the water level goes down," said Viktoria Mytling, a Nuclear Regulatory Commission spokeswoman again downplaying the event. "The reactor water level does go down a certain amount as a consequence of a SCRAM [sudden shutdown]. What happened at Fermi in terms of the **water level going down was expected** Mytling said that the normal reactor vessel water level is 197 inches and the minimum level is 150 inches. http://michiganmessenger.com/16404/dte-seeks-to-downplay-incident-at-fermi-ii-nuclear-power-plant
7. Fermi 3 has had at least 14 Quality Assurance Contentions filed against it to which 5 have been acted upon. http://www.beyondnuclear.org/nrc/2010/6/16/quality-assurance-contention-against-fermi-3-new-reactor-acc.html
8. The cancer rate among people under the age of 25 in Monroe County rose at more than three times the rate of the rest of the state between 1996 and 2005, according to a report generated by the Michigan Department of Community Health (MDCH). Between 1996 and 2000, the average rate of cancer cases for this group was 18.5 cases per 100,000 people; between 2001 and 2005, the rate grew to 24.3 per 100,000. Between 1996 and 2000 the statewide rate of cancer for this group was 20.2 per 100,000; between 2001 and 2005, the rate was 21.9. Cancer rates have grown 3 times the rate in Monroe County than the rest of the state. http://michiganmessenger.com/12965/cancer-questions-grow-around-fermi-nuclear-plan . With cancer rates such as these, how can a parent NOT be worried about their children?
   A.http://michiganmessenger.com/14545/"http://michiganmessenger.com/8200/kalamazoo-doctor-finds-childhood-leukemia-deaths-increase-near-old-nuke-plants

B.http://michiganmessenger.com/14545/“http://michiganmessenger.com/11897/public-health-expert-urges-examination-of-cancer-rates-around-fermi

Michigan, and more importantly the people of Monroe County, are tired of playing Russian Roulette with a nuclear reactor. DTE’s track record is ABMYSSAL! There is increasingly more and more pollution being dumped into Lake Erie evidenced by huge algae blooms, Monroe’s cancer rates are up tremendously, the plant is NOT prepared for ANY type of catastrophic event such as extreme flooding or drought, it’s waste collection pools are bursting at the seams as if millions of people weren’t counting on the fresh water source of Lake Erie! What about Michigan’s federally designated pristine coastal wetlands? Lake Erie has a shallow basin, it is very fragile and is the most biologically productive of All the Great Lakes and DTE, the USACE and NRC are all asking John Q. Public to unequivocally TRUST it with ALL of our drinking water. NO. WAY. NO HOW!

VII. The EIS has not shown public NEED for more nuclear power in Michigan. http://www.eia.gov/forecasts/aeo/index.cfm The EIS has not adequately resolved conflicts or addressed resource use, the practicability of using practicable and reasonable alternative locations AND/OR METHODS to accomplish the objective of proposed structure. The F3EIS has not demonstrated how natural gas can fulfill the projected energy needs as a reliable source of base load power.

1. Increases in the estimated costs for new nuclear plants make new investments in nuclear power uncertain. Implementing task force recommendations to allow for all the UNEXPECTED events that may be likely to occur would make a new reactor economically unfeasible. Four new nuclear power plants are completed in the Reference case, all of which are brought on line by 2020 to take advantage of Federal financial incentives. High construction costs for nuclear plants, especially relative to natural-gas-fired plants, make other options for new nuclear capacity uneconomical even in the alternative electricity demand and fuel price cases. http://www.eia.gov/forecasts/aeo/source_nuclear.cfm
2. No new nuclear or coal plants may ever be needed in the United States, the chairman of the Federal Energy Regulatory Commission said today. "We may not need any, ever," Jon Wellinghoff told reporters at a U.S. Energy Association forum. Building nuclear plants is cost-prohibitive, he said, adding that the last price he saw was more than $7,000 a kilowatt -- more expensive than solar energy. "Until costs get to some reasonable cost, I don't think anybody's going to [talk] that seriously," he said. "Coal plants are sort of in the same boat, they're not quite as expensive. There's enough renewable energy to meet energy demand, Wellinghoff said. "There's 500 to 700 gigawatts of developable wind throughout the Midwest, all the way to Texas. There's probably another 200 to 300 gigawatts in Montana and Wyoming that can go West. He also cited tremendous solar power in the Southwest and hydrokinetic and biomass energy, and said the United States can reduce energy usage by 50 percent. "You combine all those things together ... I think we have great resources in this country, and we just need to start using them," he said. But planning for modifying the grid to integrate renewables must take place in the next three to five years, he said. "If we don't do that, then we miss the boat,"Wellinghoff said. "That planning has to take place so you don't strand a lot of assets, a lot of supply assets." Electricity demand growth has slowed in each decade since the 1950s. After

9.8-percent annual growth in the 1950s, demand (including retail sales and direct use) increased 2.4 percent per year in the 1990s. From 2000 to 2009 (including the 2008-2009 economic downturn) demand grew by 0.5 percent per year. In the Reference case, electricity demand growth rebounds but remains relatively slow, as growing demand for electricity services is offset by efficiency gains from new appliance standards and investments in energy-efficient equipment. http://www.eia.gov/forecasts/aeo/MT_electric.cfm

3. Generation from U.S. nuclear power plants increases by 9 percent from 2009 to 2035, but its share of total generation falls from 20 percent in 2009 to 17 percent in 2035. The Reference case assumes that existing nuclear power plants will continue operating through 2035 (except for retirements already announced); that some plants will be upgraded to higher rated capacities; and that a small number of new nuclear power plants will be built as a result of various incentive programs. http://www.eia.gov/forecasts/aeo/MT_electric.cfm
4. Most new capacity additions use natural gas and renewables. Decisions to add capacity and the choice of fuel depend on a number of factors. With growing electricity demand and the retirement of 39 gigawatts of existing capacity, 223 gigawatts of new generating capacity (including end-use combined heat and power) will be needed between 2010 and 2035 (Figure 78) figure date Natural-gas-fired plants account for 60 percent of capacity additions between 2010 and 2035 in the AEO2011 Reference case, compared with 25 percent for renewables, 11 percent for coal-fired plants, and 3 percent for nuclear. Escalating construction costs have the largest impact on capital-intensive technologies, including nuclear, coal, and renewables. However, Federal tax incentives, State energy programs, and rising prices for fossil fuels increase the competitiveness of renewable and nuclear capacity. http://www.eia.gov/forecasts/aeo/source_nuclear.cfm
5. In 2000, a boom in construction of new natural-gas-fired plants began, quickly bringing capacity back into balance with demand and, in fact, creating excess capacity. More recently, the economic recession in 2008 and 2009 caused a significant drop in electricity demand. As a result, the lower demand projected for the near term in the AEO2011 Reference case again results in excess generating capacity. Capacity that is currently under construction is completed in the Reference case, but only a limited amount of additional capacity is built through 2025. In 2025, capacity growth and demand growth are in balance again, and they grow at similar rates through 2035. http://www.eia.gov/forecasts/aeo/source_nuclear.cfm

Due to time limitations, I have not been able to to fully go thru the EIA.GOV site. But I'm sure there 's a lot of good information that can answer any questions you may have in regard to energy consumption, forecasts and current usage. Sincerely, Christy Anderson, (734)654-0693 or christy914@sbcglobal.net