

NMP3CEm Resource

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To: NMP3COLEIS Resource
Subject: Public Comments re: Nine Mile Point Unit 3 environmental scoping

July 20, 2009

Submitted via: NMP3.COLEIS@nrc.gov

Subject:
Public Comments regarding:
NUCLEAR REGULATORY
COMMISSION
[Docket No. 52038; NRC20080581]
Nine Mile Point 3 Nuclear Project, LLC
and UniStar Nuclear Operating
Services, LLC; Nine Mile Point 3
Nuclear Power Plant Combined
License Application; Notice of Intent
To Prepare an Environmental Impact
Statement and Conduct Scoping

As posted in the Federal Register / Vol. 74, No. 97 / Thursday, May 21, 2009 / Notices beginning on page 23895.

The Dirty Dozen Reasons to Block the Proposed Nine Mile Point 3 Atomic Reactor *Environmental Scoping Comments to the U.S. Nuclear Regulatory Commission (NRC)*

There are many reasons that Nine Mile Point 3 Nuclear Project, LLCs and UniStar Nuclear Operating Services, LLCs proposed new reactor at its Nine Mile Point Unit 1 and Unit 2 Nuclear Power Plant (which is very nearby the James A. FitzPatrick Nuclear Power Plant) near Oswego, New York on the Lake Ontario shoreline is unacceptable. But our top twelve objections against the dirty, dangerous, and expensive Nine Mile Point 3 reactor are:

1. **There are no safe, sound solutions for the deadly high-level radioactive wastes that Nine Mile Point 3 would generate.** The Obama administration has pledged to cancel the proposed Yucca Mountain dumpsite in Nevada, due to its geologic unsuitability. Reprocessing irradiated nuclear fuel, to extract plutonium for supposed re-use, risks nuclear weapons proliferation and disastrous radioactive contamination of the air, soil, and water, and would cost taxpayers tens to hundreds of billions of dollars. On-site storage in indoor pools or outdoor dry casks (as currently already done at the FitzPatrick nuclear power plant) risks catastrophic radioactivity releases due to accident or attack, as well as eventual leakage due to breakdown of the storage containers. A 2001 NRC report, for example, revealed that 25,000 fatal cancers could result downwind of a waste pool fire. A 1998 anti-tank missile test at the U.S. Army's Aberdeen Proving Ground showed dry casks vulnerable to attack. Even consolidating wastes at centralized interim storage centers would leave them vulnerable to accidents or attacks, and risks environmental injustice, as low income communities of color are most often targeted. All away-from-reactor storage proposals would risk severe accidents or attacks upon shipping containers on the roads, rails, or waterways, even potentially including the Great Lakes. Especially considering cleaner alternatives, such as efficiency and renewables, it is a moral transgression against future generations to create a forever deadly hazard like radioactive waste, just to generate 40 to 60 years of electricity. Nine Mile Point 3 would increase the risk that New York State would be targeted for a national high-level

radioactive waste dumpsite, or even commercial irradiated nuclear fuel reprocessing center, as has already occurred in the past at West Valley, New York near Buffalo.

2. **The lack of low level radioactive waste disposal begs the question, should yet more be generated at Nine Mile Point 3?** Even Nine Mile Point 3s so-called low level radioactive wastes would have nowhere safe and sound to go. Barnwell, South Carolina has closed its dumpsite to New York State wastes. Every low level dump opened in the U.S. has leaked, and most have had to be closed. An imminent Texas dump may be licensed to accept wastes from Nine Mile Point 3 sometime in the future, but puts the underlying Ogallala Aquifer at risk of radioactive contamination. Nine Mile Point 3 would increase the risk that New York State would be targeted for a regional low level dump, as has occurred in the past.
3. **The inevitable safety risks of accidents associated with Nine Mile Point 3 favor efficiency and renewables as safer alternatives.** A 1982 NRC report showed that a major accident at FitzPatrick releasing catastrophic amounts of radioactivity could cause 1,000 scaled peak early fatalities, 16,000 scaled peak early injuries, 17,000 peak cancer deaths, and \$103 billion in property damage. Given population growth since, casualties would be even worse in the present day. And when adjusted for inflation, such damages would now top \$218 billion. The same study reported that Nine Mile Point Unit 1 suffering a catastrophic radioactivity release could cause 800 peak early fatalities, 11,000 peak early injuries, 14,000 peak cancer deaths, and \$66.2 billion in property damages a figure that has grown with inflation to over \$140 billion in current dollar values. The same study reported that Nine Mile Point Unit 2 could cause 1,400 peak early fatalities, 26,000 peak early injuries, 20,000 peak cancer deaths, and \$134 billion in property damages a figure that has grown with inflation to over \$284 billion in current dollar values. Similar or even worse casualties and damages could result from an accident at the larger Nine Mile Point 3 reactor. In fact, untested new reactors with undetected technical glitches are at significantly increased risk of suffering a major accident. Fermi 1, Three Mile Island and Chernobyl were new reactors when they suffered their infamous accidents. Old reactors are also at elevated accident risk due to age-related breakdown of safety significant systems, as occurred at Davis-Besse nuclear plant near Toledo in 2002 (reactor lid corrosion), and at Indian Point in New York State (steam generator tube rupture) in 2000. Thus, the geriatric FitzPatrick, Nine Mile Point 1, and Nine Mile Point 2 reactors, and the brand new Nine Mile Point Unit 3, immediately adjacent to or so nearby one another, would represent the worst of both worlds, the extremes of atomic reactor risks. An accident at one could even spread to the others.
4. **Given the inherent vulnerability of Nine Mile Point 3 to terrorist attack, efficiency and renewables are more protective and secure energy choices.** The FitzPatrick and Nine Mile Point nuclear power plants are located nearby the major population centers of Rochester and Syracuse. They are on the shore of Lake Ontario, upstream of the drinking water supply for tens of millions in the U.S. and Canada. FitzPatricks, as well as Nine Mile Point Unit 1 and 2s reactors and on-site wastes are already at risk of terrorism. Nine Mile Point 3 would effectively increase these risks of attack yet further. As with accidents, a malicious large-scale radiological release from the FitzPatrick/Nine Mile Point nuclear power plant would result in countless casualties and unimaginable property damages downwind and downstream, not to mention catastrophic ecological havoc. A supersized new EPR reactor at Nine Mile Point would make the FitzPatrick/Nine Mile Point nuclear power plant amongst the largest in North America, located very near an international border, both issues raising their own security concerns.
5. **FitzPatrick/Nine Mile Points emergency evacuation plan is already unworkable, making yet another reactor unacceptable.** NRCs ten mile emergency planning zone is arbitrarily small. Hazardous and even deadly radioactivity could extend over a much greater distance. Emergency planning should extend at least 50 miles, and should also include the surrounding major population centers of Rochester, Syracuse, Buffalo, Watertown, and Utica. Current evacuation routes are too narrow, and must be expanded to accommodate a mass exodus in the event of a major accident or attack. During severe winter weather, current road clearing capabilities are woefully inadequate and must be upgraded in surrounding areas. This egregious emergency preparedness inadequacy must be rectified before Nine Mile Point Unit 3 is licensed. Potassium iodide tablets, along with instructions for proper usage, should

be distributed regularly within the 50 mile emergency planning zone and to nearby major population centers, as should emergency evacuation plan instructions.

6. **Routine radioactivity releases from Nine Mile Point 3 would harm human health.** Even new reactors like Nine Mile Point 3 will release significant amounts of radioactivity directly into the environment. These would include so-called "planned" and "permitted" releases from the reactor's "routine" operations, as well as unplanned releases from leaks and accidents. Atomic reactors are designed to release radioactive liquids and gases into the air, water, and soil, which can then bio-concentrate in the ecosystem and human bodies. Liquid releases, which at FitzPatrick/Nine Mile Point are discharged into Lake Ontario, include tritium, which can incorporate into the human biological system, even down to the DNA level. Once organically bound, tritium can persist in the human body for long periods, emitting damaging radioactive doses. Tritium can cross the placenta from mother to fetus. Current radiation health standards are not protective of women, children, nor fetuses. The Institute for Energy and Environmental Research has launched a campaign called "Healthy from the Start," which urges NRC, EPA, and other agencies to protect the more vulnerable "Reference Pregnant Woman" from such radioactive hazards as tritium, rather than "Reference Man" as is currently done. The State of Colorado has instituted a tritium regulation 40 times stronger than the federal standard; California has a 50-fold stronger standard. New Yorkers deserve equally strong protection. Significantly, the Ontario Drinking Water Advisory Board has recently advised that Ontarios tritium drinking water standards be dramatically strengthened, to make them midway between the strong standards of California and Colorado (that is, 45 times stronger than current U.S. federal standards).

Large-scale accidental tritium leaks into groundwater in Illinois, that had been covered up for a decade by the nuclear utility and state environmental agency, were uncovered in early 2006 by a concerned mother whose daughter had contracted brain cancer at age 7. A cluster of rare childhood brain cancers were then documented in the community of Morris, Illinois, home to three atomic reactors and a high-level radioactive waste storage facility. The scandal led to the revelation of widespread accidental tritium releases nationwide at almost all atomic reactors.

Accidents at atomic reactors can lead to the large-scale release of harmful radioactivity into the environment. A new reactor at Nine Mile Point will effectively increase such accident risks: "break in phase" accident risks at the new Nine Mile Point 3 reactor, and "break down phase" accident risks at the deteriorated, old FitzPatrick, Nine Mile Point 1 and Nine Mile Point 2 reactors.

Radioactivity releases occur not only at reactors, but at every step of the nuclear fuel chain. Accurate accounting of all radioactive wastes released to the air, water and soil from the *entire reactor fuel production system* is simply not available. The nuclear fuel chain includes uranium mines and mills (often located near indigenous peoples communities), chemical conversion, enrichment and fuel fabrication plants, reactors, and radioactive waste storage pools, casks, trenches and other dumps. Nine Mile Point 3 would increase the risk that new uranium mining in the Great Lakes basin, such as in Ontario and Michigans Upper Peninsula, would go ahead. Nine Mile Point 3 would also increase the risk that New York State will be targeted for a high-level radioactive waste dump, or a so-called low level radioactive waste dump.

As confirmed for the seventh time by the U.S. National Academy of Sciences in 2006 in its Biological Effects of Ionizing Radiation report (BEIR VII), *every exposure to radiation increases the risk to human health*. Radioactivity can damage tissues, cells, DNA and other vital molecules, potentially causing programmed cell death (apoptosis), genetic mutations, cancers, leukemias, birth defects, and reproductive, immune, cardiovascular and endocrine system disorders.

A new reactor at FitzPatrick/Nine Mile Point would add to the cumulative impact of such routine releases already occurring at operating atomic reactors, namely the FitzPatrick, Nine Mile Point 1, and Nine Mile Point 2 reactors, operating on the shore of the precious Lake Ontario, as well as occurring at the multiple operating atomic reactors and other nuclear facilities on the Canadian side of Lake Ontario.

7. **Toxic discharges from Nine Mile Point 3 would further threaten Lake Ontario's fragile ecosystem.** Biocides, such as chemicals used to control zebra mussels, could be used in significant quantities and then released into Lake Ontario. Cleaning solvents, heavy metals, and even fossil fuels integral to Nine Mile Point Unit 3's operations would also be released into Lake Ontario. Over a decade ago, the U.S.-Canadian International Joint Commission called for the virtual elimination of toxic chemicals into the Great Lakes, a goal Nine Mile Point 3 would not meet. Lake Ontario is too fragile for yet another large-scale source of significant toxic contamination, given the many nuclear power plants already located there. There is also the Port Hope, Ontario uranium processing complex, responsible for discharging large-scale radioactivity and toxicity into Lake Ontario. Given Nine Mile Point 3's inevitable radiological and toxic releases, drinking water intakes from Lake Ontario must be required to constantly monitor contaminants in order to adequately protect public health. NRC should address the synergistically harmful health impacts due to human exposures to radioactivity and toxic chemicals. NRC should address these issues, and the cumulative impacts that can be expected from adding yet another reactor at the FitzPatrick/Nine Mile Point nuclear power plant site.
8. **Lake Ontario cannot tolerate the thermal pollution from yet one more large-scale thermo-electric power plant.** In addition to FitzPatrick and Nine Mile Point, there are many reactors on the Ontario side of Lake Ontario, namely at the Pickering and Darlington atomic power plants east of Toronto, site of a grand total of a dozen reactors; two additional new supersized reactors are proposed to be built at Darlington. As already seen throughout the Great Lakes, such overheating could even force the shutdown of thermo-electric power plants on hot summer days, significantly impacting the reliability of the electric grid. Even a decade ago, there were already instances when reactors on Lake Ontario were forced to shut down due to the high temperature of the lake water used for cooling. This problem will only grow worse and more frequent with global warming.
9. **Nine Mile Point Unit 3 would harm Lake Ontario's fisheries.** Nine Mile Point 3's water usage would worsen the impingement and entrainment of Lake Ontario biota already occurring at the numerous large-scale thermo-electric power plants sited on its shores. Negative impacts, including fish kills, must be prevented, to protect sports fisheries as well as Native American fishing rights recognized by legally-binding treaties signed by the U.S. federal government. Harm to all life stages of Lake Ontario biota must be analyzed by NRC, and mitigated by Nine Mile Point 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC at Nine Mile Point Unit 3.
10. **Areva's proposed Evolutionary Power Reactor (EPR) design is beset with problems and questions, and thus the current NRC licensing proceeding is premature.** Many thorny technical questions have yet to be answered, and no date certain has been established for final NRC certification. The Finnish nuclear safety agency and the British nuclear safety agency have recently raised significant technical safety questions about the Areva EPR design proposed for construction in their own countries. Leaked documents also question the ability of the EPR to survive aerial terrorist attacks. It is absurd for the concerned public to be asked to comment on the environmental impacts of a proposed reactor design that does not yet exist, in that it has not yet been finalized. This proceeding should be suspended until the EPR design is finalized and NRC-certified.
11. **Taxpayer and ratepayer subsidies for Nine Mile Point 3 would represent opportunity costs lost to safer, cheaper, faster, and cleaner alternatives such as efficiency and renewable sources of electricity.** The nuclear power industry has enjoyed over *half a trillion dollars* in public support over the past half century. The Nine Mile Point/FitzPatrick Nuclear Power Plant has already benefitted for decades from federal research and development, as well as liability insurance against major accidents. The federal 2005 Energy Policy Act provided yet another \$13 billion in subsidies, tax incentives, and additional support for new reactors. The industry has already successfully lobbied for \$18.5 billion for new reactor federal loan guarantees, approved in Dec. 2007, making taxpayers co-signors on financially risky nuclear construction projects. Now Constellation, UniStar, Entergy, as well as Nuclear Energy Institute lobbyists are seeking additional tens, or even hundreds, of billions of dollars in nuclear loan

guarantees as part of various federal energy and climate bills. Such public funds would be much better invested in energy efficiency, which is seven to ten times more cost effective than a new atomic reactor at reducing greenhouse gas emissions, or in wind power, so plentiful in New York State and offshore in Lake Ontario, and twice as cost effective as nuclear power at carbon reductions.

12. Nine Mile Point 3 is not needed, and rather would displace safer, cheaper, faster, and cleaner energy alternatives such as efficiency and wind power, that better fit New York States electricity and job creation needs. The current economic recession requires cost-effective green job creation, affordable electricity rates to spur business development, and 21st century environmental entrepreneurship. Investment in efficiency represents the lowest hanging energy fruit, with tremendous potential for ratepayer cost savings, cost-effective climate mitigation, and widespread job creation. Environmentally-sensitive, strategic development of even a very small fraction of the large potential for on-land and offshore wind power could supply New York States electricity needs for the foreseeable future, at more affordable rates than Nine Mile Point 3, while more cost-effectively creating much larger numbers of jobs.

For the foregoing reasons, our organization calls upon NRC to undertake a careful review of the energy efficiency and renewable energy potential available in FitzPatrick/Nine Mile Points service area, and to find that they are the preferred alternative to the dirty, dangerous, expensive, and unneeded Nine Mile Point Unit 3 new reactor.

Sincerely,

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