Fermi3CEm Resource

From: Gordon Edwards [ccnr@web.ca]
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To: Fermi3COLEIS Resource
Subject: Comments on the Proposed Fermi 3 Reactor from CCNR

Submission to the NRC: February 9 2009

The Canadian Coalition for Nuclear Responsibility (CCNR) is a not-for-profit NGO in Montreal, Canada. The CCNR has been active on nuclear issues since its inception in 1975.

We are grateful to have this opportunity to provide comments to the Nuclear Regulatory Commission on the scope of the EIS for the proposed Fermi-3 nuclear power reactor.

Up until a few years ago, there had been no new nuclear power reactors ordered in North America since 1978.

Reactor orders on this continent dried up for many reasons.

• Reactors proved to be far more expensive than previously thought, and the costs proved notoriously difficult to control.

• Construction times were so long that the building of each nuclear reactor simply added to the energy demand for a decade or more before useful energy could be produced, often too late to respond to the demand that had been perceived 10 or 15 years earlier.

• The problem of safely guarding high-level radioactive wastes in perpetuity had not been properly appreciated or satisfactorily addressed.

• The accumulation of over 200 million tons of radioactive tailings from uranium mining operations in the USA posed what the Wall Street Journal once described as "an economic and environmental time-bomb".

• The catastrophic potential of reactor accidents had not yet received the public attention that ensued from the Three Mile Island and Chernobyl reactor accidents.

• The perilous link between Atoms for Peace and Atoms for War had not yet been demonstrated with the Indian atomic bomb explosion in 1974 (brought about using "peaceful" nuclear technology provided by Canada and the USA).

• The enormous potential for meeting our energy needs through efficiency measures and through renewable sources of energy was not as evident as it is today.

We at CCNR believe that the Environmental Impact Statement prepared for a new reactor today should be required to address all these issues quite thoroughly and explicitly.

(1) The proponents should be prevented from availing themselves of "pre-emptive bailouts" from the federal treasury in the form of loan guarantees.
Such loan
guarantees are contrary to a free market philosophy and to the "level playing field"
approach which should prevail in any form of responsible and sustainable energy planning. For the federal taxpayers to guarantee all necessary loans without any financial accountability or oversight is to invite abuse and waste of precious capital resources. Too much reckless and irresponsible investment has already taken place in the form of sub-prime mortgages and other schemes which separate the investor from the consequences of bad investment decisions. This should not be allowed to continue. The proponent should be

required to justify the investments that will be needed in terms of the willingness of the investor to stand by that investment without requiring federal assistance.

(2) The proponents should be required to do a complete "carbon- footprint" analysis involved in the construction of the plant and the preparation of materials and equip- ment, including the carbon emissions associated with uranium mining, refining, enrichment, and fuel fabrication. The proponents should also be required to demon- strate their ability to obtain the necessary trained and experienced personnel to carry out the construction work, and what measures will be taken to avoid delays which have plagued the industry world-wide. This is especially important in light of the (so far) $3 billion cost over-runs on the French built AREVA EPR reactor in Finland, and the fact that that project is already 2 years or more behind schedule.

(3) When reactors were originally built, nuclear proponents optimistically hoped that the nuclear waste problem would somehow be solved in a timely fashion. Now we know better. Wherever a reactor is built, the high-level waste that it produces will stay on site for decades, and possibly even in perpetuity. The proponent should be required to justify siting a nuclear reactor near one of the largest and most important bodies of fresh water on the North American continent, given the fact that these wastes may remain there indefinitely. Would NRC willingly approve a high-level waste repository right on the edge of the Great Lakes?

(4) The proponent should be required to examine the "life-cycle"
environmental impacts
of the reactor, including the steps in the uranium fuel chain:
perpetual management of
radioactive tailings, total reclamation of uranium mining areas, health and environmental impacts of enrichment facilities, as well as eventual reprocessing of irradiated nuclear fuel at some future time. This proponent should be required to include in this examination an accurate summary of the environmental impacts to date of such activities in various locales throughout the USA and elsewhere in the world.

(5) The proponent should be required to document what efforts have been made by the nuclear industry to persuade insurance companies in North America to remove the "nuclear exclusion clause" from their insurance policies for property owners.
If the nuclear industry
believes that these reactors are safe, and not subject to catastrophic accidents, then they should be able to convince the insurers to provide normal coverage to their customers, thereby eliminating the need for the Price Anderson Act (which was originally intended to be only a temporary measure until the industry matured). If, on the other hand, the industry is not mature enough to convince the insurers that offsite damage from reactor accidents can be covered in the normal way, then the NRC would be, in our opinion, irresponsible to allow such reactors to be built within "striking distance" of large metropolitan areas or beside irreplaceable bodies of water. These considerations are particularly important since the events of 9/11 which have demonstrated the enormous damage that can be done by a small band of dedicated terrorists who have no regard for their own survival.

(6) The proponent should be required to examine how the large-scale use of nuclear power in the world, as foreseen by the apostles of the "nuclear renaissance", can possibly be carried out without greatly exacerbating the problem of access to nuclear technology and nuclear materials that can be used to make weapons of mass destruction. In particular, the fact that present and foreseeable reactor designs require either uranium enrichment or the breeding of man-made weapons-usable fissile materials such as plutonium or uranium-233 means that no country can be energy self-sufficient in nuclear power without having access to weapons-usable materials and technology. The proponent should be asked to explore the question of how one can promote the widespread use of peaceful nuclear power technology without anticipating the further proliferation of nuclear weapons, especially when the USA, Russia, France, Britain, and China have not lived up to their legal and treaty obligations to eliminate their own nuclear arsenals, and several countries who have "illicitly" developed nuclear weapons -- Israel, India, and Pakistan -- far from being treated as inter- national pariahs, are treated as important allies of the USA. This sends a very dangerous message to the rest of the world. In addition, the favourable status now awarded to India, without requiring her to even sign the Non-Proliferation Treaty, may sound the death-knell to that important document. The message seems to be that once a country has developed its own nuclear weapons, all will be forgiven and normal or even favored relations will prevail.

In a nuclear-armed world, nuclear war becomes just a matter of time. To ignore the devastating impact of all this -- weapons proliferation and eventual nuclear warfare, even if conducted half-way around the globe -- on the continent of North America and the world is folly. The same computerized models that have been used to predict carbon dioxide buildup in the atmosphere have also been used to show that a nuclear war between India and Pakistan (for example) would be sufficient to cause dramatic climate changes in the entire Northern Hemisphere in a very short time.

The proponent should be required to assert categorically whether the fuel from this reactor will or will not be available in the future for possible reprocessing.
Moreover, the environmental
impacts of reprocessing must be considered as well as the proliferation risks associated with the legitimization of reprocessing as a "normal" part of the nuclear fuel chain.

(6) The proponent should be required to conduct a detailed analysis of the potential for liberating or producing the same amount of energy benefits as this reactor would produce, through alternative investments in energy efficiency and alternative energy sources, including wind (both onshore and offshore), co-generation, geothermal energy, solar, etc.

Thank you for the opportunity to address these comments to you. CCNR believes if the principles of good science and sound economic practices are followed, nuclear power will be seen to be quite far down on the list of energy priorities.
It will also become apparent
that the negative environmental and security impacts of nuclear power cannot be limited either in space or in time to an acceptable degree -- that is, one which can be successfully managed by the present generation of officials.

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