

*Citizens Utility Board, Clean Wisconsin, Coulee Region Progressives,  
Wisconsin League of Conservation Voters,  
League of Women Voters of Wisconsin Education Fund, Nukewatch,  
Peace Action Wisconsin, Physicians for Social Responsibility Wisconsin,  
Sierra Club – John Muir Chapter, Wisconsin Environment,  
Wisconsin Network for Peace & Justice, WISPIRG*

May 20, 2009

Wisconsin Governor Jim Doyle  
Wisconsin State Legislators  
State Capitol  
Madison, WI 53707

**Re: Legislation to Promote Nuclear Power in Wisconsin**

Dear Governor, Senators and Representatives,

The undersigned groups have grave concerns about new legislation that may be introduced to promote the expansion of nuclear power in Wisconsin. Our concerns are based on the existing problems faced by currently operating nuclear reactors, specifically, the unresolved problem of long-term waste storage and the high life-cycle cost of nuclear power to taxpayers and ratepayers.

**Unresolved Long-Term Waste Management**

Unlike renewable electricity sources, the by-products of nuclear electricity generation exist in the environment for hundreds of thousands of years and are highly toxic. The 104 nuclear power plants currently operating in the United States produce enormous quantities of radioactive waste annually, including 2,000 metric tons of high-level radioactive waste<sup>1</sup> and 12 million cubic feet of low-level radioactive waste per year.<sup>2</sup> More than 58,000 metric tons of highly radioactive spent fuel already has accumulated at reactor sites around the U.S. for which there is currently is no permanent repository. Here in Wisconsin, at three nuclear reactor sites, we are projected to have 1,365 metric tons of high level nuclear waste by 2011.<sup>3</sup>

The Obama Administration has declared that the proposed high-level waste repository at Yucca Mountain in Nevada is no longer an option. This means that currently the country has no solution for permanently managing spent fuel. No industry in Wisconsin should be allowed to generate such highly toxic waste without being able to permanently and safely dispose of it.

High-level radioactive waste is so dangerous to public health and the environment that the Environmental Protection Agency recommended that standards require a disposal site be able to

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<sup>1</sup> Andrews A. Spent Nuclear Fuel Storage Locations and Inventory. Congressional Research Service Report for congress, RS22001, Dec. 21, 2004. Available at: <http://ncseonline.org/nle/crsreports/04dec/RS22001.pdf>.

<sup>2</sup> General Accounting Office (GAO). Low-Level Radioactive Waste: Disposal Availability Adequate in the Short Term, but Oversight Needed to Identify Any Future Shortfalls. GAO Report to the Chairman, Committee on Energy and Natural Resources, US Senate, June 2004. Available at <http://www.gao.gov/new.items/d04604.pdf>.

<sup>3</sup> The sites include two operational reactor sites at Point Beach and Kewaunee, and one at LaCrosse that has been shut down since 1987. DOE's Energy Information Administration, DOE's Final Environmental Impact Statement, 2002, DOE/EIS 0250-F.

protect the public from radiation released from the waste for up to one million years.<sup>4</sup> Prudence dictates that before Wisconsin approves the construction of new nuclear reactors for electrical generation, we know that a site exists for the permanent and safe disposal of radioactive waste that new reactors will generate.

We are also concerned that new nuclear plant construction will increase pressure to identify a new disposal site for long term waste. In the 1980's the federal government identified two areas in Wisconsin for high level radioactive waste disposal: The Wolf River batholith in east central Wisconsin and the Puritan batholith in northern Wisconsin. Opening the door to new nuclear plant construction opens the door also to identifying one of these sites as a federal disposal site for the nation's radioactive waste.

There is also clear evidence that reprocessing doesn't solve the problem of increasing volumes of waste. The 2003 MIT study states that the costs and security risks of reprocessing spent fuel rods do not support this technological pathway. In the study, MIT researchers examined what would be needed to expand our world wide nuclear capacity to address global warming. The study assessed the needs of an additional 1000 nuclear power plants worldwide and urged the policy makers to forego expensive and risky reprocessing and dispelled the idea that "breeder" reactors will be widely operational.<sup>5</sup>

### **The Lifecycle Cost of Nuclear Power**

The lifecycle cost of nuclear power is astounding. Taxpayers and ratepayers, not the nuclear industry, take on all of the economic risk. Consider the following:

#### Construction Costs and High Risk Loan Guarantees

While the costs of renewable energy technologies are dropping, cost to build nuclear power plants continues to rise.<sup>6</sup> It is well understood that the next generation of plants will not be built without up-front federal funding. There is currently \$18.5 billion authorized in federal loan guarantees for new reactors<sup>7</sup>. The Congressional Budget Office calculates, based on historical data, that loans for new reactors are expected to have a 50% default rate<sup>8</sup>. Utilities proposing to build new reactors are estimating construction costs to be nearly \$9 billion for a 1000 MW plant; providing loan guarantees for 80% of that value at a 50% default rate – it is easy to see why even Wall Street won't fund new nuclear projects.<sup>9</sup> We feel that the taxpayer should not fund them either.

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<sup>4</sup> EPA, 40 CFR Part 197, Public Health and Environmental Radiation Standards for Yucca Mountain, Nevada: Final Rule, October 15, 2008. Federal Register / Vol. 73, No. 200.

<sup>5</sup> MIT, *The Future of Nuclear Power*, 2003, Summary, pp 4-5.

<sup>6</sup> Standard & Poors, *Special Report, Nuclear Power Overview: Utilities Look again at New Plants – and Risks*, November 3, 2008. Available at <http://www2.standardandpoors.com>.

<sup>7</sup> Barker, A, Prepared Remarks of NRC Region III, WI Joint Legislative Informational Hearing, March 12, 2009.

<sup>8</sup> Congressional Budget Office cost estimate of S.14, Energy Policy Act of 2003, <ftp://ftp.cbo.gov/42xx/doc4206/s14.pdf>.

<sup>9</sup> Direct Testimony and Exhibits of Steven D. Scroggs on behalf of Florida Power & Light in Docket No. 07-0650, dated October 2007; [www.tennessean.com/20081209/GREEN02/812090342/1001/RSS6001](http://www.tennessean.com/20081209/GREEN02/812090342/1001/RSS6001).

### Cost of Energy to Ratepayers

The days of considering nuclear power “too cheap to meter” are long gone. Even with carbon regulation current technologies are more cost efficient to the rate payer. Projected electricity costs from new nuclear reactors are estimated to be up to \$0.23 per kilowatt-hour. Wind energy is projected to be about half that amount.<sup>10</sup> Regardless of the energy source, the most cost efficient way to address global warming is to decrease demand for electricity, through steady and sustained investment in energy conservation in buildings and increasing efficiency in all sectors of the economy.<sup>11</sup>

### Waste Storage Costs

The development of a permanent waste storage site has been a thorn in the side of the nuclear industry for a long time. For most of its history, industry officials agreed that a permanent waste storage site was essential to successful operations of these plants. Billions of taxpayer and ratepayer dollars were put into the development of Yucca Mountain, which was never a scientifically-sound site. Now the nuclear industry is backpedaling, claiming that “on-site storage” will do for “decades or hundreds of years”, and that it has collected \$22 billion in ratepayer money to do it.<sup>12</sup> Operating more reactors means increasing volumes of waste with nowhere to go and passing on increasing costs to local ratepayers to fund on-site storage of these toxic materials.

### Bearing the Cost of Radioactivity Release

Current legislated limits on financial liability show our government’s limited capacity to measure the harm of radioactivity release. The 1957 Price-Anderson Act caps the nuclear industry’s liability for a nuclear accident at \$10.9 billion. In the event of radioactivity release, costs for cleanup beyond this amount would be borne by taxpayers. The Nuclear Regulatory Commission’s 1982 CRAC-2 study estimated that damages from a severe nuclear accident could run as high as \$314 billion – or more than \$560 billion in 2000 dollars.<sup>13</sup>

### The Cost of Contaminated Sites and Cost of Decommissioning

Unlike truly renewable power sources, the site of a nuclear power plant, waste storage site or uranium mine can not be returned to usefulness. There is cost to the taxpayer for protecting and monitoring radiation contaminated sites. In the worst cases, such as the site of the waste reprocessing facility in New York State on the shores of Lake Erie, these sites can only be abandoned, not rehabilitated. They are a grim reminder of the legacy of the nuclear industry in our midst, and a constant reminder that these costs will be borne for generations to come.

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<sup>10</sup> Electricity costs are levelized lifecycle costs including interest and operating expenses in 2007 dollars. Harding, Jim. *Economics of New Reactors and Alternatives*, presented at the Carnegie/NPEC Conference, February 11, 2009. Available at <http://www.carnegieendowment.org/events/?fa=eventDetail&id=1246&prog=zgp&proj=znp>.

<sup>11</sup> Mahkijani, A. *Carbon-Free, Nuclear-Free*, pp 73 to 94.

<sup>12</sup> NPR interview with NEI spokesperson Alex Flint in response to de-funding of Yucca Mtn Federal Waste Repository on March 11, 2009. The NEI website states that \$31 billion has been collected from ratepayers for waste storage. NPR interview available at <http://www.npr.org/templates/story/story.php?storyId=101689489>.

<sup>13</sup> Keith O. Fultz, “A Perspective on Liability Protection for a Nuclear Plant Accident,” Government Accounting Office, GAO/RCED87-124, June 1987, page 40.

## Summary

Given nuclear power's high costs and its legacy of nuclear waste, expanding the use of nuclear power is not a responsible choice for meeting future electricity needs in Wisconsin. We urge you to oppose legislation that promotes nuclear power in our state until each of these substantive and cost issues is addressed.

Sincerely,

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## Resources

*Chernobyl on the Hudson? The Health and Economic Impacts of Terrorist Attack at the Indian Point Nuclear Plant*, Union of Concerned Scientists, 2004. Available at [www.ucsusa.org](http://www.ucsusa.org).

*Dirty Dangerous & Expensive*, Physicians for Social Responsibility, 2009. Available at [www.psr.org](http://www.psr.org).

*Governors Task Force Report on Global Warming*, 2008, available at [www.wi.dnr.gov](http://www.wi.dnr.gov)

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*Nuclear Power Is Not the Answer*, Caldecott, Helen, The New Press, 2006. Available at [www.thenewpress.com](http://www.thenewpress.com).

*The Future of Nuclear Power*, MIT, 2003. Available at [www.mit.edu](http://www.mit.edu).

*The High Cost of Nuclear Power: Why America Should Choose a Clean Energy Future Over New Nuclear Reactors*, WISPIRG Foundation, available at [www.wispirg.org](http://www.wispirg.org).

*Unsafe Operations, Wisconsin Reactors often reported and fined*, Nukewatch, 2009. Available at [www.nukewatch.com](http://www.nukewatch.com).