

# Ohio Sierra Club Nuclear Committee

January 22, 2011

# There are 2 Imminent Nuclear Threats to Ohio

- First Energy is asking the Nuclear Regulatory Commission (NRC) to grant a 20-year operating extension for its Davis-Besse reactor on Lake Erie.
- USEC, Inc., is asking the US Dept. of Energy (DOE) for a \$2-billion taxpayer-funded loan guarantee to complete its uranium enrichment plant, known as the American Centrifuge Plant (ACP). They are also asking to transfer their license to operate the plant to a subsidiary of a subsidiary.

# **Threat #1: Davis-Besse License Extension to 2037**

- Two NRC environmental and safety scoping meetings were held at Camp Perry on Nov. 4, 10 days after they were noticed in the Federal Register and 3 days after the public was notified of the meeting by an article in the Toledo Blade on Nov. 1. The Sierra Club and the Wood County Green party testified against the extension.

# Nuclear power is polluting, and no solution for global warming.

- The Sierra Club opposes nuclear energy in its entirety, citing serious environmental, health, and public expense issues throughout the nuclear fuel cycle. The time frames needed to isolate the radioactive nuclear waste generated from this process are geologic in nature. This will consume public time and money for generations to come. The first step for solving the problem of radioactive waste is to stop generating it.
- Sierra Club comments to the NRC noted that environmental effects occur around the nation through the entire nuclear fuel cycle—from uranium mining, milling, refining, transportation, conversion, enrichment, fabrication of fuel rods, the nuclear reactors themselves, depleted uranium deconversion, as well as storage and disposal of waste, and this should come under consideration when the NRC develops the Environmental Impact Statement.
- Enormous amounts of energy go into this cycle. Added together along with disposal, these supporting industries cause nuclear power to also come with a heavy carbon price, which means that **nuclear power will not address but will worsen global warming.**

# Nuclear Power is Not Needed

- New sources of renewable energy like wind, solar, and geothermal, plus conservation and efficiency, can easily replace Davis-Besse. There are no adverse effects when D-B goes offline.
- Ohio's energy use is declining. The Sierra Club's Energy Consultant, Ned Ford, has excellent statistics on this trend.

# Accidents and Violations at D-B

- The Davis-Besse nuclear reactor has had more accidents and violations that any nuclear plant currently operating in the US.
- First Energy and the NRC allowed a delay in the inspection of the reactor head in 2002. They came very close to missing a hole in the reactor head that left only 1/8 inch of steel between the reactor and a nuclear disaster. that would have left the Midwest uninhabitable and the Great Lakes, the world's largest supply of fresh water, filled with radioactive contamination. The public should have no confidence in the ability of FirstEnergy to self-regulate or in the NRC to rigorously inspect and enforce.
- Even the 40-year time frame for operation of a power plant does not have an engineering basis, but was based on the time needed to pay off construction bonds.
- Kevin Kamps of Beyond Nuclear has a 10-page documented list of violations at D-B, including a stuck-open pressurizer Pilot-Operated Relief Valve in 1977, an almost identical accident precursor that lead to a 50% core meltdown at Three Mile Island; a loss of cooling to the reactor core in 1985; and a direct hit by a tornado in 1998 causing complete loss of outside electric power and destroying their alert, communication and emergency systems as well as threatening a meltdown.



Red Rusty Boric Acid Deposits on Vessel Flange (12RFO)



## Further Actions Taken

- A People's Public Hearing was held in Toledo on Dec. 18, and was well attended. Comments made there were submitted to the NRC, along with comments from 15 people filmed by the Sierra Club Nuclear Committee in Columbus.

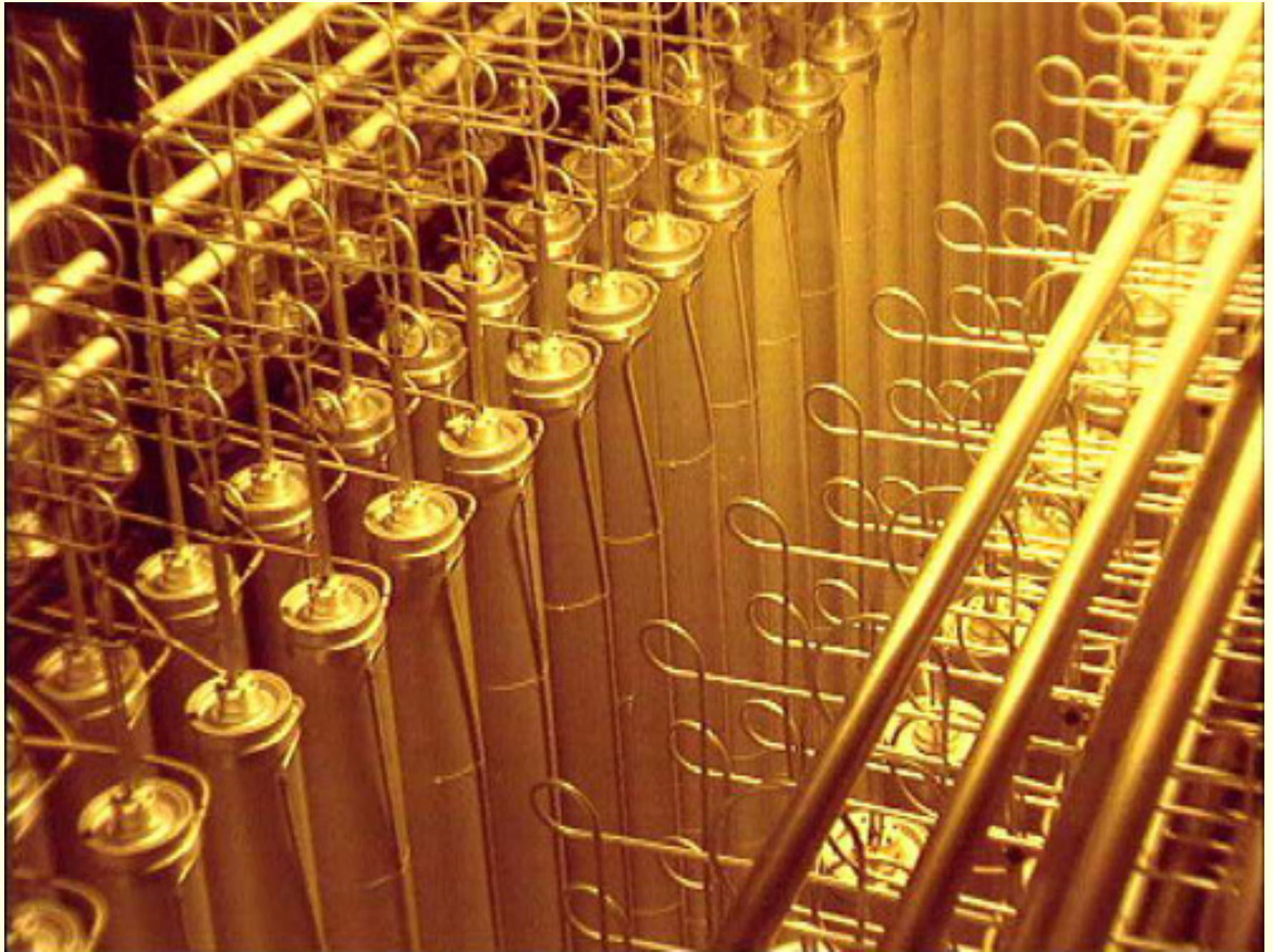
## Further Actions Taken

- On Dec. 27, 2010, an environmental coalition officially intervened with the NRC against a license extension. Four groups – Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, and the Green Party of Ohio – allege that:
  - 1) wind and solar power can readily replace Davis-Besse's electricity by the end of its 40 year operating license in 2017.
  - 2) the potential casualties and costs that could be caused by a severe radioactivity release from Davis-Besse have been grossly underestimated and
  - 3) First Energy Nuclear Operating Company has vastly understated the true costs that would occur in the aftermath of a catastrophic radioactivity release at Davis-Besse.

## **Threat #2: USEC, Inc. and the American Centrifuge Plant at Piketon, OH**

- USEC Inc. has put about \$1.8 billion into a partially completed uranium enrichment plant, the ACP. USEC applied to the U.S. Dept. of Energy (DOE) for a \$2-billion taxpayer-funded loan guarantee to finish the work. But they would still be at least \$600 million short of the estimated cost.
- In July of 2009 the DOE turned down the request, citing USEC's financial instability and technical difficulties with the plant.
- USEC is still hoping to get the bailout, and Ohio's politicians are behind it, including Gov. Strickland, Senators Voinovich and Brown, local Southern Ohio politicians and most likely Ohio's new Governor Kasich and Senator Portman.





# The ACP will not be Competitive

- 1) The enriched uranium produced would be used to fuel nuclear power plants around the country. But current nukes are in their last years of being operational, and only 2 new ones are currently being built.
- 2) **URENCO**, a German company, recently started enrichment operations in New Mexico. The plant cost *half as much* to build as the ACP and has “proven” technology. **Areva**, the French nuclear giant, has received a \$2-billion loan guarantee and is constructing an enrichment facility in Idaho. **GE-Hitachi** is working on laser technology for an enrichment plant in North Carolina. Since these cost less to build, they can sell their product for less.
- 3) USEC stock is now junk-rated—in spite of the fact that they have gotten enormous taxpayer subsidies, including their Piketon site lease and enriched uranium from the former Soviet Union’s weapons program.

## More reasons for financial failure

- 4) Enriched uranium from Russia and other overseas plants are major competitors in the world market. The US recently agreed to allow Russia to provide a 25% share of its enrichment needs, and estimates are that at maximum capacity, LES will be able to contribute 55%, Areva 64%, GE-Hitachi up to 58% and USEC 37%. This is a grand total of about 2.4 times US needs.
- 5) US enrichment is currently protected by disallowing imports.
- 6) The amount of uranium available in the world is finite and the remaining supply appears to be relatively small.

**Why would the DOE consider risking \$2 billion taxpayer dollars for an unneeded and uncompetitive uranium enrichment plant?**

# US Military Involvement (?)

- DOE's consideration for a USEC loan guarantee may not be for more fuel to operate nuclear power plants, which is the ACP's stated purpose, but instead for a domestic source of enriched uranium.
- **Domestic source** is a code for the ability to switch to making highly enriched uranium for nuclear bombs and submarines. Foreign-owned facilities (URENCO in New Mexico and Areva in Idaho) could not be asked to make this switch.
- As in all things nuclear, the long arm of the military extends a heavy hand. They can leverage intense pressure for what they want, which can include pressure on DOE to make the loan guarantee.

# Enrichment Ownership Shell Game

- On Nov. 17, 2010, USEC announced that they have created a subsidiary limited liability corporation called American Centrifuge Holdings, LLC which in turn will control 4 subsidiary LLCs— American Centrifuge Manufacturing, LLC, American Centrifuge Technology, LLC, American Centrifuge Enrichment, LLC and American Centrifuge Operating, LLC.
- USEC has requested permission from the Nuclear Regulatory Commission (NRC) to transfer its operating licenses for the ACP to American Centrifuge Operating, LLC, **a subsidiary of a subsidiary.**

# Protecting USEC, the parent company, from ACP financial failure

- These “Bankruptcy Remote Entities” have no assets other than the real estate itself.
- This ensures that USEC would not be financially affected if the ACP fails.
- If problems crop up with the ACP, the taxpayer could be on the hook not only for the \$2 billion loan guarantee but also for additional capital to fix any problems and to keep the ACP in service. The ACP will require continued subsidies in order to be competitive in the marketplace, costing taxpayers additional billions and throwing good money after bad.

# **Nuclear “Socialism”**

## **Socializing the costs, privatizing the profits**

- On Jan. 4, 2011, the NRC held a public meeting in Piketon on the USEC operating license transfer at the request of the Ohio Sierra Club. The Sierra Club appreciates this effort.
- Four NRC officials from Washington and 2 USEC officials were there to answer questions.
- USEC officials were not willing to say what the ultimate cost of the ACP might be or what the interest cost will be. Where will they come up with a \$600 million shortfall, according to their third quarter 2010 report? There is no projected completion date. The lead cascade is not completed as required by their license. The NRC is looking the other way.

## Further Actions

- We are sending a letter to Sec. Chu and others at the Dept. of Energy summarizing the Jan. 4 meeting and expressing our concerns.
- We are copying the letter to some of Ohio's legislators.
- We are sending this information to southern Ohio newspapers in the Piketon area.

# Nuclear Committee Work in 2010

- Worked with personnel in Senator Brown's DC office.
- Worked with the National Sierra Club Nuclear Issues Activist Team—alarming proposal to incinerate foreign radioactive waste by Energy Solutions in Oak Ridge, Tennessee.
- Continued opposition to a nuclear plant at Piketon. This half-baked proposal is unlikely to materialize. We speculate that this is to keep nuclear in the public eye, gain subsidies whether or not a plant would be finished, and add rationale for loaning \$2 billion to USEC.
- Sept. 13—Members testified at PUCO hearing—Duke Energy's Integrated Resource Forecast Plan stated they could not meet renewable and efficiency standards of Ohio's energy bill. Therefore they can justify building a nuclear plant at Piketon. Sierrans touted poor Duke statistics and lack of hearings in Duke service territory.

# Nuclear Committee Work in 2010

- June 21—Mark Gilbertson, DOE Environmental Management Envoy for the Energy Parks Initiative provided a public presentation on the EPI. The Sierra Club lobbied the DOE for this presentation.
- June 4 to 6—Two Committee members attended the National Grassroots Summit and Forum on Radioactive Waste Policy at Loyola University in Chicago. Of particular concern is President Obama's Blue Ribbon Commission on America's Nuclear Future.
- March 23—Rep. Dennis Kucinich (D-Ohio), chair of the House Oversight Domestic Policy Subcommittee, held a hearing to critically examine the nuclear loan guarantee program. The Ohio Sierra Club sent several informational papers to Rep. Kucinich on this topic.

# Join Us!

- Ohio Sierra Club's Nuclear Calls are at 7 pm on the second Monday of most months. Contact Pat Marida at 614-890-7865 or [marida@wideopenwest.com](mailto:marida@wideopenwest.com).
- Join the National Sierra Club's Nuclear Issues listserve. <http://lists.sierraclub.org/SCRIPTS/WA.EXE?INDEX> and click on ACTNET-NUCLEAR. It takes you to the page where you can Join or Leave. Lots of interesting discussion on nuclear issues across the country.



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