What Can You Do?

Key Websites

- **www.beyondnuclear.org**
- **www.nirs.org**
- **www.ieer.org**
- **www.nukebusters.org**
- **www.fairewinds.com**

Resources

- **Abolition 2000:** http://www.abolition2000.org/
- **Global Zero:** www.globalzero.org

And sign up for Google Alerts for "Vermont Yankee"!

For direct actions:

Contact Hattie Nestel, at:
hattieshalom@verizon.net

Nuclear Free Future Meetings

Every 3rd Thursday
9:30 a.m.
2 Conz Street, Suite 2B
Northampton, MA 01060
nuclear@afscwm.org

Vermont Yankee Power Plant (AP file photo)

Nuclear Power and Nuclear Weapons: Two Sides of the Same Coin

- The uranium mined for nuclear power reactors and the spent fuel from a nuclear reactor can be re-processed to make nuclear bombs. *Every nuclear reactor enables a country to develop its own nuclear weapons.*
- As early as 1946, a federal report concluded "the development of atomic energy for peaceful purposes and the development of atomic energy for bombs are in much of their course interchangeable and independent."
- Former director of the International Atomic Energy Agency, Mohammed ElBaradei, called nuclear power plants "latent bomb plants." *Peaceful* nuclear technology is a contradiction in terms.

How many weapons?

US has over 2500 nuclear warheads on hair trigger alert and nearly 2600 in reserve.

How much do they cost?

Nuclear weapons-related programs could cost $600 billion over the next 10 years. The Department of Energy's 2013 budget requests three times more for nuclear weapons activities than energy efficiency and renewables work.

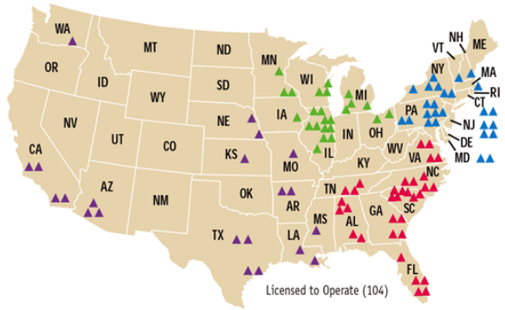
Nuclear weapons hazardous waste:

DOE nuclear weapons waste sites are the most polluted sites in the US and more costly than EPA Superfund sites by factor of 4.

The DOE nuclear weapons program is one of the top "high risk" programs for waste, fraud, and corruption.

Scale of Problem

- There are now more than 400 nuclear power reactors in 31 countries, all producing potential bomb materials, and nearly 300 research reactors in 56 countries, some producing high level uranium.
- An estimated 2 million kilograms of nuclear reactor wastes are being stored worldwide. Only 5 kilograms are needed to make one nuclear bomb. Nuclear power litters the earth with long-lived radioactive waste and increases the risk of nuclear weapons proliferation.

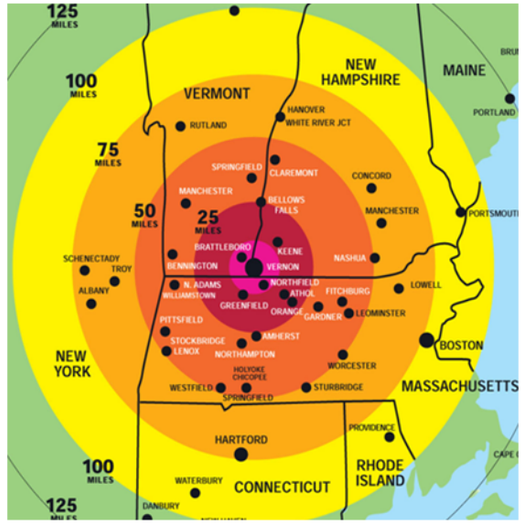


- The two greatest dangers facing human and ecological security are climate change from fossil fuels and nuclear weapons. Nuclear energy has not weaned us from oil nor have nuclear weapons made the world safer. Yet governments continue to pour *money, brainpower, and resources into both, despite a financially failed nuclear power industry* .
- The US is planning to build 50 more reactors by 2020. China plans to build 30 more, with 31 under construction.
- In 2012 President Obama raised the ceiling for loan guarantees for new nuclear power plant construction by from $17.5b to

We can create a Carbon-Free, Nuclear-Free Future!

Can Fukushima Happen Here?

Vermont?
Massachusetts?
Connecticut?



Vermont Yankee Nuclear Plant Radiation Fallout Zones

Nuclear Free Future Coalition
of Western Massachusetts
nuclear@afscwm.org
413-584-8975

Economics of Nuclear Power

- The government assumes liability for damages to life and property above $12.6 billion; private sector insurers consider power plants to be to risky to insure.
- In 2007, GE CEO Jeffery Immelt told the London Financial Times that wind power is economically a far better investment than nuclear power.
- In 1952, the blue ribbon Paley Commission proposed to President Eisenhower that the US build the economy on solar sources, avoid nuclear power, and phase out dependence on fossil fuels.
- It takes ten years to build a nuclear power plant and only 3 months to build commercial wind or solar farms.
- Wind electricity is cheaper to produce than nuclear electricity.

Same Design

- 23 of 104 US nuclear power plants have the same General Electric Mark I design as Japan's Fukushima plant. The NRC (Nuclear Regulation Commission) and GE engineers criticized the designs as inadequate to contain a reactor accident.
- Yankee in Vernon, VT and Pilgrim in Plymouth, MA nuclear power plants are GE Mark I designs. Nuclear engineer experts fear that a Fukushima type accident could happen here in the United States.

Renewable energy sources

- Renewable energy sources are between 2 and 7 times as effective as nuclear power plants per kWh, due to greenhouses gases emitted from uranium mining and milling, transport, and construction involved with building a nuclear power plant
- Many research institutions have concluded that we could transition to between 80 and 100% renewable energy by 2050, using current technologies that are available and in development.
- Germany, which derives the same percentage of its energy as the US from nuclear power, is on track to phase out all nuclear energy by 2022.

Radioactivity Hazards

- There is no disposal solution for spent fuel rods, so they are stored on site.
- A single nuclear reactor has between 5 and 10 times as much radioactive material in its waste fuel pool than was released in the Chernobyl accident.
- Spent fuel rods are packed so tightly that they carry the risk of fire and meltdown.
- A 2005 federal government study reported that terrorists could easily mount a successful attack on reactor spent fuel pools.
- The US recommended a 50 mile radius evacuation zone in Japan after the Fukushima accident but maintains only a 10 mile evacuation radius for US power plants.

Record of the Obama Administration

- In 2007, then Senator Obama called the NRC a "moribund" agency and "captive to the industry it regulates."
- Of the 66 applications to extend the life of aging nuclear plants another 20 years, the NRC has rejected none.
- In May 2011, the NRC announced that of 65 operating reactor sites it inspected after Fukushima, 12 had problems with one or more safety and emergency equipment and procedures. Examining the same reports, ProPublica found 60 sites with deficiencies.
- President Obama has proposed $36 billion in taxpayer loan guarantees for nuclear power plants; investors consider nuclear power to be too risky an investment.

Climate Change Risks

- Climate change threatens the operation and safety of existing nuclear plants due to severe heat waves, flooding, and hurricanes. Natural disaster risks are higher now than when the existing power reactors were designed 60 years ago.
- In June 2011, Nebraska's 2 nuclear power plants were partially submerged by floods from the Missouri River.
- Nuclear power plants require as much as 330,000 gallons of cooling water from nearby bodies of water. In the summer of 2003, a prolonged heat wave struck half of Europe and caused a major water shortage. Nuclear power plants shut down causing industrial activity shutdowns, computer crashes, harvest failures, and many deaths from extreme heat.

Radiation

- There is no amount of radiation that is considered harmless. In 2006 the National Academy of Sciences confirmed that any radiation increases your risk of cancer.
- Tritium, or radioactive hydrogen, has leaked into the ground at 48 nuclear sites in the US, including Vermont Yankee in Vernon. In at least 37 sites the leaking tritium exceeded the EPA drinking water standard.
- A German study found that the risk of childhood leukemia doubled for children living within 10 kilometers of a nuclear power plant.