Anti Nuclear Energy . . .

Nuclear Energy: Too Risky, Too Costly, Too Late

By Jack Harper, PhD Environmental Biology/Public Policy

As a young Air Force officer at the Strategic Air Command HQ assigned to calculate the number of fatalities and casualties in case of a nuclear exchange between the United States and the Soviet Union, I became intensely aware of the deadly effects of radioactivity on humans. Above all, I learned that there is no safe level of ionizing radiation regardless of the source: nuclear bombs or nuclear power plant leaks and accidents.

Nuclear power is too risky. In the United States there has been the partial core meltdown at the Three Mile Island nuclear power plant in Pennsylvania and a number of close calls including the near disaster at the Davis-Bessie nuclear power plant in Ohio. The most dangerous periods of operation are at the beginning and near the end of the 20-40 year life span of a nuclear power plant. A cooling tower at the Vermont Yankee nuclear plant collapsed without warning just last year attesting to an aging facility. Nearly half of U.S. nuclear plants have had their 30-year licenses extended by the Nuclear Regulatory Commission (NRC). All 104 nuclear power plants now operating in the U.S. will have to be dismantled before mid century at a cost of $1 billion each. A large-scale nuclear accident in the United States would halt construction of new nuclear power plants.

Dr. Brice Smith in his book, "Insurmountable Risk: The Dangers of Using Nuclear Power to Combat Climate Change" calculated that even if new nuclear power plants were 10 times safer, there would be a 75% chance of a major nuclear accident by 2050 given a nuclear construction boom. It would only take one accident to spread radionuclides with half-lives of thousands if not millions of years over a large area causing widespread death and disease and long-term ecological damage. As a result of the Chernobyl nuclear power plant accident in the Ukraine in 1986, 4000 people may die of radiation poisoning, damages will result in the hundreds of billions of dollars, and there will be a permanent loss of land use according to an international team of more

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For Nuclear Energy . . .

Nuclear Power Comes Back

By Mary Nightlinger, former LWVFA EQ Chair

When I first began to follow the issues of nuclear power generation, Virginia Power was building its Lake Anna reactor. With a group of fellow environmentalists I toured that building site and attended mind-wrenching conferences on the issues of nuclear fission. We came to conclude that our experts were hurrying down a path that they did not truly understand and were ignoring serious problems. I came to regard nuclear power with concern. But by 1990, it became clear to those who would pay attention that there was a far greater threat facing our home planet.

For three decades the United States has shunned nuclear energy. Public fears of the dangers of nuclear power plants and the great costs and approval times needed to build them put a *de facto* moratorium on nuclear power. Now the world and its dangers have changed. Global climate change, resulting from the burning of fossil fuels, is happening now. We have procrastinated with measures to reduce greenhouse gases for too long. Major species extinctions and disruptions to human civilization are going to occur. If we are to prevent the worst, we must take actions that will yield significant results as quickly as possible.

Nuclear power generation is the only greenhouse-gas-free electric power source that is available to provide effective amounts of energy within the limited time left to us. Solar and wind power are auxiliary sources that should be pursued. Neither can provide a large-scale *continuous* source of power. There is no such thing as clean coal. The administration recently cancelled its much-touted experiment in greenhouse gas sequestering, and the environmental and health effects of burning and mining coal are great. Geothermal has the promise to be a significant source of continuous heat and energy in the future. Geothermal is an excellent low-cost energy source in volcanic areas, but such locations are quite limited. Nonetheless, you can reach geothermal heat anywhere on earth if you drill deep enough. The best region in the US runs from North Dakota to Texas. There is even a promising area in eastern Virginia. Investment money is starting to go into geothermal, but there is a long way to go, and we "haven't got time for the waiting game." (From

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Nuclear Energy: Too Risky, From Page 5

than 100 scientists. In 90 minutes a $10 billion nuclear plant could be reduced to ruble.

More than 46,000 tons of high-level nuclear waste is stored at reactor sites around the country awaiting the completion of a national storage facility. Nearly $9 billion have been spent on the underground facility at Yucca Mountain, Nevada. Although the NRC submitted a license application in June 2008, the State of Nevada contends that the site is unsuitable since it "is seismically and volcanically active, porous and incapable of geologically containing the waste. More than 123 million people live near the proposed truck and train routes which would be used to deliver waste to Yucca Mountain. Those routes travel through 703 counties in 44 states. An accident or attack along those routes could hurt or kill thousands of innocent people."

Nuclear power costs too much. Nuclear power plant costs have risen dramatically from $3 billion for those last constructed in the U.S. to between $5 and $12 billion. Wall Street has been reluctant to invest in new nuclear power development since the 1980's because of the risks and expense. The nuclear industry has no choice but to turn to the American tax payer for disaster insurance, loan guarantees, and other subsidies. Atomic Energy Commission Chairman Lewis Strauss was way off the mark in 1954 when he said that nuclear power "would be too cheap to meter". As a carbon dioxide abatement method nuclear energy is unlikely to be economical compared to wind with natural gas standby according to Dr. Brice Smith.

Nuclear power is not the only carbon-free source available. The annual growth rate for wind power is 27% and for solar is 41% compared to less than 1% for nuclear. The Department of Energy estimates that wind power could produce 20% of U.S. electricity needs by 2030. Geothermal power is also a competitive source of electricity in the U.S. with output by 2017 expected to be 15 gigawatts (GW) that could be ramped up to 100 GW, close to the present output of U.S. nuclear power. (A typical nuclear power plant delivers about one gigawatt of electricity.) Thermal solar power with 12 hour heat storage in molten salt could provide continuous electrical power for much of the nation.

During the last few years when 17 GW of wind power was installed in the U.S., no new nuclear power came on line. "Most remarkably, comparing all options' ability to protect the earth's climate and enhance energy security reveals why nuclear power could never deliver these promised benefits even if it could find free-market buyers-while its carbon-free rivals, which won $71 billion of private investment in 2007 alone, do offer highly effective climate and security solutions, sooner, with greater confidence" according to Amory Lovins, chief scientist of the Rocky Mountain Institute.

Even though utilities have plans to build some 30 new nuclear reactors in the U.S., the leading utilities are uncertain whether they will be built. Exelon Corporation, the nation's largest operator, indicated that until the nuclear waste problem is resolved, it will not build a new plant. A new nuclear reactor in the U.S. will not be placed into operation until at least 2015 because of the long construction times of 7 to 10 years. Since we have at most 10 years to put into place a massive program to arrest global warming, according to Dr. James Hansen, top climatologist at NASA, it is vital that our carbon-free power sources not be too costly, too risky, or too late to avoid catastrophic climate change.

The nuclear power industry and its political allies would have you believe that additional nuclear power is essential. It is not. In their ground-breaking study, "Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies", Princeton researchers Steven Pacala and Robert Socolow make it clear that additional nuclear fission power is not necessary to provide for our energy needs while stabilizing the climate. In concert, internationally recognized nuclear scientist Dr. Arjun Makhijani in his book, "Carbon-Free and Nuclear-Free: A Roadmap for Energy Policy," presents a comprehensive plan to supply the nation's energy needs without using additional nuclear fission power or fossil fuels.

Editor's Note: Jack is a member of the LWVFA E.Q. Committee

Suffragist's Great Grandson, From Page 3

and gardens to the site. (see picture of present site on p.6).

Conducting the dedication ceremony was NVRPA board chairman Jim Mayer. Officials in attendance included Virginia Senator George Barker (39th District), Virginia Delegate Dave Albo (42nd District), Fairfax BOS Vice-chair Sharon Bulova, and other NVRPA board members including Jean Packard (also an LWVFA member). Also attending were Paul Gilbert, NVRPA Executive Director; John Houser, Occoquan Regional Park manager; and Fairfax Water Board Vice Chair Connie Houston (also past president of LWVFA and LWVVA). Members on the LWVFA memorial committee include Mary Grace Lintz, Acting President; Jane Barker and Lynne Garvey-Hodge, Memorial Fund-Raising Co-Chairs; and Janey George, Voters Service Director.

In Cooperation With No. VA Regional Park Authority . . .

Turning Point Plaza Dedicated to Suffragists

Over 150 people gathered next to the kiln at the Occoquan Regional Park on July 27th to cut the ribbon signifying the beginning of a campaign to construct a monument recognizing the struggles and ultimate success of the American Women's Suffrage movement. These women were directly responsible for the founding of the League of Women Voters in 1920.

Scheduled for completion in 2010, the monument's design is stll a work in progress, according to organizers Jane Barker, Janey George, and Lynne Garvey-Hodge. Named "Turning Point Plaza", the site will be built with charitable donations to the "LWVFA ED Fund Suffrage Memorial Wall" and are tax deductible.

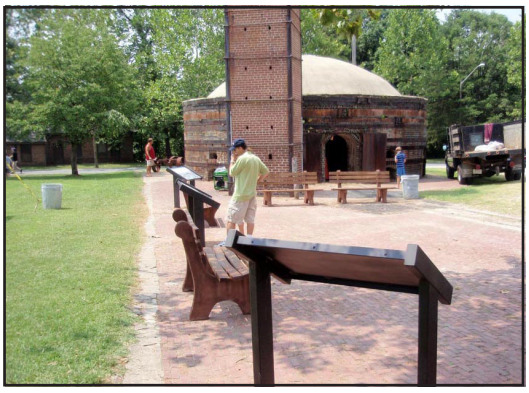


Photo Information

Top: LWVFA members participate in ribbon cutting; **Second row** left: suffragist actress protesting; middle: suffragists and President Wilson ready to cut the ribbon; right: Mrs Robert Walker (aka Lynne Garvey-Hodge) told of her experience while protesting and in jail; **Third** row left: Turning Point site (adjacent to the brick kiln) today; right Caitlin Schneiderman singing suffrage songs; **Fourth row:** awning sheltering 170+ guests from the sun.

Nuclear Power Comes Back, From Page 5

"September Song")

Though the cost of electricity produced by nuclear power is very cheap, the cost of building a nuclear power plant is high. Still it is not prohibitive. The rest of the world has been building new versions of these facilities and operating them competitively.

But what of the dangers of nuclear power plants? With the continuing use of nuclear power in the rest of the world, have they been addressed? Some of them have and some have not. The once common anxiety that a nuclear plant might blow up like an atom bomb was never realistic, nor was the badly flawed Chernobyl design ever permitted in the West. However, the possibility of a disastrous meltdown, caused by loss of coolant and a resulting out-of-control chain reaction, was real. Newer designs have attempted to overcome this danger. One new system keeps the fission process dependent on the presences of cooling water.

A permanent depository for nuclear waste remains an unmet goal. High-level waste is still stored on site, now in big steel and concrete casks rather than cooling pools. Another way to dispose of the spent fuel rods is to reprocess them into a new fuel, highly enriched uranium (HEU). This reduces the waste by about 60%. Because HEU is a weapons-grade material, the US has been unwilling to allow this. Most spent fuel also contains plutonium, which is bound up in large, heavy and highly radioactive spent fuel assemblies not suited to theft. Reprocessing to free the plutonium for fuel would result in a light and low-radiation material more tempting to thieves. However, when one considers that North Korea, Iran and (almost) Syria, are making nuclear weapon fuel with relatively cheap centrifuges and that about half of US nuclear fuel now comes from dismantled Russian warheads, a question arises about whether the problems of reprocessing still outweigh those of nuclear waste.

Safety measures and oversight are the responsibility of the Nuclear Regulatory Commission (NRC). Since 1979, there have been 35 cases in which reactors have been shut down for a year or more, because so many equipment-related problems had been allowed to accumulate that it took that long to bring the facility up to standards. The latest was the Davis-Besse plant in Ohio. The NRC staff thought the safety concerns required that the reactor be shut down immediately, but NRC's upper echelon permitted the plant's management to continue to operate the reactor for three more months until a regularly scheduled shutdown. Besse-Davis was found to be 150 to 230 days from disaster when it finally was shut down. The NCR has a reputation for failing to enforce its own regulations. Its staffers report feeling pressure not to report safety concerns.

As for defense against sabotage and terrorist attacks, in the past the NRC's assumptions of credible threats have been unrealistic. Before 9/11 their assumed threat was three men with rifles. Even so and with advance notice of mock attacks, the "attacks" were successful nearly half of the time. Current assumptions promulgated by the NRC after the 9/11 disaster are not public knowledge, but members of Congress have expressed serious concern about them.

Steps needed to provide safety of nuclear facilities must at least: (1.) Clean up the NRC (2.) Take facility defense responsibility out of the hands of the operators and vest it in the Dept. of Homeland Security or other federal authority (3.) require that new nuclear plants be shielded so that they will withstand the impact of a commercial airliner. This is required in Europe.

Thirty-two new US nuclear plants are in the planning stage. There probably will be a fight over constructing every one.

Note: Al Gore has said that nuclear power is one of the non-greenhouse gas power sources that we must turn to.

INFORMATION SOURCES: Catalyst Magazines (UCS), Discover Magazines, The Economist, Newsweek, The Washington Post, Al Gore TV clip

LWVNCA Elects New Officers

Melpi Jeffries, President, LWVNCA

At our well attended Annual Meeting on May 17th , the following were elected: Andrea Gruhl - Vice President; Barbara Ewalt – Treasurer; and Elinor Hart and Virginia Long - Directors. Aleen Starkweather was elected Chair of the Nominating Committee. Continuing are Melpi Jeffries, - President; Eileen Williams – Secretary; and Naomi Glass and Barbara Sherrill - Directors. Bonnie Franklin was appointed to the Board as Co-Program Chair at the August Board Meeting.

We will be starting off the year with our **Annual Presidents Brunch on October 3**. And please save **Saturday, November 15** for our re-scheduled "Eleanor Roosevelt Tour," created by Beth Cogswell, and relax after all of our election frenzy.

What Is A Proffer, and Why Should We Care?

By Baba Freeman and Marcia McDevitt,
Proffer Study Co-Chairs

(Editor's Note: This is the first in a series of articles on the Proffer System in Fairfax County- an LWVFA study item adopted at the 2008 LWVFA Annual Meeting.)

"A proffer is a written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property." This is the definition in a glossary which appears in every Fairfax County staff report on a rezoning application.

For example, a proffer in a rezoning for a higher number of dwelling units might be in the form of a donation of land to the county for a school building or library, or of transportation improvements such as a turning lane or traffic signal, or of a specific number of low-cost housing units on the rezoned property. Usually the change means an increased value for the developer [like a bigger building] and the inducement will mean an increased value for the County.

By undertaking such proffers, the developer is providing something of value to the County which might otherwise have to be funded from county taxes, like the building site or the library or the traffic signal. A problem can arise, however, when a proffer is not fulfilled. Since the developer has posted bond against just that happening, you would think that the County then receives the money, but you would be wrong. If it is not used to carry out the proffer within seven years, [which can result from another agency's problems of timing --something like a bond issue failing to pass] the money goes into the Commonwealth Transportation Fund and the County has lost out.

Both the Deputy County Attorney for Land Use and Development, and the Zoning Administrator have been interviewed. And from both officials, we gathered that the County is using the rezoning process as a way to implement the Comprehensive Plan, the document which describes the way the County should look. The Comprehensive Plan provides flexibility to the process, allowing for the correction of errors or misunderstandings, amplifications, and other improvements.

To quote from the flyer *Rezoning - A User's Guide to the Fairfax County Rezoning Application Process,*

> "Once an application is submitted, it is reviewed to determine compliance with the Zoning Ordinance. ... Copies of the application are circulated to County agencies for comment ... A public hearing date is scheduled and a staff coordinator is assigned ... to synthesize comments from individual agencies ... a staff recommendation is formulated. The Staff Coordinator works with the applicant throughout the process to resolve issues in the form of proffers and changes to the development plan. ...A staff report on the rezoning application is published two weeks prior to the Planning Commission public hearing. ... Notification of surrounding property owners must be completed 20 days prior to the scheduled public hearing ... The Planning Commission holds its public hearing and makes a recommendation to the Board of Supervisors. The Board of Supervisors holds its public hearing and makes the final decision ... The Clerk to the Board of Supervisors will send written confirmation to the applicant of the Board of Supervisors' decision which, if approved, includes the accepted proffers. ...
> A filing fee must accompany an application for a rezoning. The fee is $8,820; plus an applicable per acre fee ranging from $165.00 to $435.00. The application fee is not refundable after the application has been accepted by the County."

In a future update, you will learn how the county checks up on its accepted proffers. We will have further reports as the committee proceeds with interviewing land use lawyers, developers, planners, legislators, and neighbors.

It is not too late to join the "Proffers Committee" – if you are interested, contact Baba Freeman at 703-437-1901, freeman@ecoisp.com; or Marcia McDevitt at 703-437-7020, memcdevitt@aol.com.

LWVFA Visit State Capital

LWVFA Action Director Jane Hilder hosted a trip to Richmond in late June to visit Capital Sqaure and learn more about this history and architecture of our state capital. Twelve women enjoyed seeing the Executive Mansion, "the second governor's residence contructed in the nation and today the oldest governor's residence still used for its original purpose." (VA Exec Mansion, 2004).

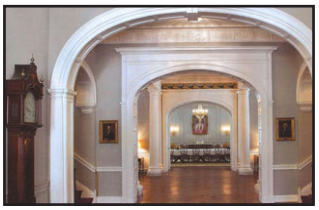
They also toured the newly refurbished General Assembly and became familiar with the area so that members would be more comfortable making legislative visits as the need arises.

Front Row (L-R): Higgins, Page, Hilder, Martin, Hostrup. **Back Row:** McQuie, Thomas, Haher, Fina, Dunne, Andrews.

Old Governor's Office

General Assembly

Virginia's Executive Mansion



Entrance Hall

LWVUS Convention Report, From Page 4

legislative, executive and judicial." (Note: this item was proposed by LWV VA and LWVFA and was recommended by the LWVUS board)

Unfortunately, for LWVOR, LWVFA and LWV VA, the not-recommended item, Redistricting Concurrence, proposed by the foregoing and based on Oregon and Virginia redistricting positions, failed. The delegates mistakenly believed that the concurrence statement would conflict with individual state League's redistricting positions.

Elections: the nominated slate was approved by unanimous consent, including Norman Turrill of Oregon, who became the first male LWVUS board member. (Mary Wilson was re-elected for another two years as President.)

Focus of convention: President Mary Wilson stressed registering and educating first-time voters.

Budget Adopted for 2008-09:

LWVUS Operating Income	$4,414,000
Total Expenses	4,538,000
LWVEF Operating Income	2,248,000
Total Expenses	2,423,000
No of LWVUS members	67,726

Convention Attendees

This Month's Unit Meeting Locations –

Topic: Voting Information - Part I

Everything You Need to Know - and Share - About Voting

Members and visitors may attend any meeting convenient for them. As of August 6, 2008 locations were correct; *please use telephone numbers to verify sites and advise of your intent to attend. Some meetings at restaurants may need reservations.*

Also Note: The September 6th meeting is designed to prepare discussion leaders, but is open to all leaguers who cannot attend any of the unit meetings.

Saturday September 6

12:00 pm Discussion leaders (and those unable to attend regular unit)
George Mason Dist Gov't Ctr
6507 Columbia Pike, Annandale
Contact: Lois 703-690-0908

Monday, September 8

1:30 pm Greenspring (GSP)
Hunters Crossing Classroom
Spring Village Drive, Springfield
Contact: Kay, 703-644-2670

Tuesday, September 9

12:30 pm McLean (McL)
McLean Community Center, Rm # 2
1234 Ingleside Ave. McLean
Contact : Anne, 703-448-6626

7:45 pm Vienna Evening (VE)
9511 Rockport Road, Vienna
Contact: Liz, 703-281-3380

Wednesday, September 10

9:30 am Fairfax Station (FXS)
7902 Bracksford Ct, Fairfax Station
Contact: Lois 703-690-0908

9:30 am Mt. Vernon Day (MVD)
Mount Vernon District Gov. Center
2511 Parkers Lane, Alexandria
Contact: Gail 703-360-6561

12:00 Chantilly/Herndon (CHD)
Sully District Governmental Center
4900 Stonecroft Blvd., Centreville
Contact: Susan, 703-391-0666

6:15 pm Dinner Unit (DU)
Yen Cheng Restaurant
Main Street Center
9992 Main Street, Fairfax
Contact: Pier 703-256-1019

7:30 pm Reston Evening (RE)
Reston Museum
1639 Washington Plaza,
Lake Anne Village Ctr. Reston
Contact: Lucy, 703-757-5893

Thursday, September 11

9:00 am Reston Day (RD)
12100 Stirrup Road, Reston
Contact: Margo, 703-620-9054

9:15 am Fairfax City Day (FXD)
10606 Norman Ave, Fairfax 22030
Contact: Jeanne 703-591-4580

9:30 am Springfield (SPF)
Packard Center (Lg. Conf. Rm.)
4026 Hummer Rd, Annandale
Contact: Nancy, 703-256-6570
or Peg, 703-256-9420.

7:45 pm Mt. Vernon Evening (MVE)
Mt. Vernon District Gov't Center
2511 Parkers Lane, Alexandria
Contact: Susan, 703-780-3902

October Unit Meetings:

Part II - Barriers to Voting

The League of Women Voters of the Fairfax Area (LWVFA)
4026 Hummer Road, Suite #214 Annandale, VA 22003-2403
703-658-9150. Web address: www.lwv-fairfax.org

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September, 2008

Sherry Zachry, President
Ron Page, Compositor
Sherry Zachry, Editor/coordinator

The League of Women Voters is a nonpartisan political organization that encourages the public to play an informed and active role in government. At the local, state, regional and national levels, the League works to influence public policy through education and advocacy. Any citizen of voting age, male or female, may become a member.

LWVFA MEMBERSHIP APPLICATION

(Dues year ends thru June 30th.)

Membership Category: Individual $55 ____ ; Household (2 persons–1 Bulletin) $75 __; Advocate Member $100 ____; Student $27.50 ____ (Coll. Attending _____)

Membership is: New ____; Renewal ____ ; Reinstate ____; Subsidy Requested ____
We value membership. A subsidy fund is available, check block above and include whatever you can afford.

Dues are **not** tax deductible. Tax-deductible donations must be written on a separate check payable to **LWVFA Ed. Fund**.

Please Print Clearly!

Name _____**Unit** _____

Address_____

City _____**State** _____**Zip + 4** _____

Phone (H) _____ **(W)** _____ **E-Mail** _____

Please mail your check and completed application to: LWVFA 4026 Hummer Rd. Suite 214, Annandale, VA 22003-2403

Thank you for checking off your interests:

___ County Govt	___ Voting Procedures	___ Health Care	___ Schools
___ Fiscal	___ Environmental Quality	___ Human Services	___ Other (Write in Below)
___ Public Libraries	___ Land Use Planning	___ Judicial Systems	
___ Transportation	___ Water	___ Juvenile Problems	