

Shaffer and Angwin: Nuclear advocacy in Vermont

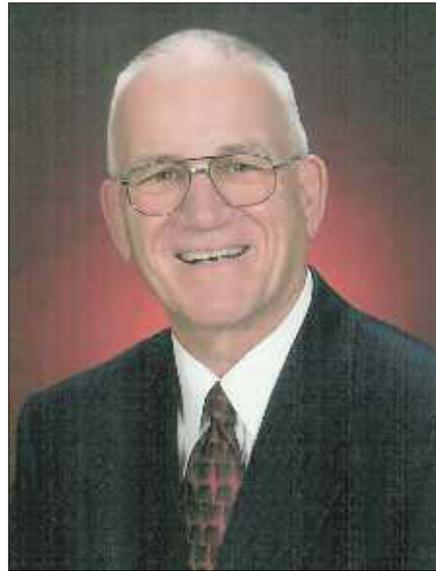
Howard Shaffer and Meredith Angwin are the main movers and shakers behind the American Nuclear Society's Vermont Pilot Project. Initiated in fall 2010 by ANS's Public Information Committee, the project provides a voice for nuclear advocacy in Vermont.

An in-state battle is being waged between those who want Entergy's 617-MWe Vermont Yankee nuclear power plant to be closed when its operating license expires in 2012, and those who want to keep it running if the Nuclear Regulatory Commission extends the plant's license for another 20 years. The NRC is reviewing Entergy's license renewal application, and a decision is expected by mid-year.

Because of a deal made when Entergy purchased the plant in 2002, however, which was amended by the state legislature in 2006, the state can deny a certificate to keep the plant in operation, even if the NRC issues a license renewal. The state's pending decision on Vermont Yankee has made Vermont the focus of antinuclear groups that want the plant closed and of nuclear advocates, such as Shaffer and Angwin, who espouse the environmental and financial benefits of the plant.

The ANS Pilot Project is a real grassroots effort by Shaffer and Angwin. Together and separately, they attend meetings, write letters to the editor, appear on cable TV and radio shows, and blog about why it is important that Vermont Yankee's license be renewed. Clark Communications, which provides public relations support to ANS, has been instrumental in helping with the pilot project by setting up media interviews for Shaffer and Angwin, both of whom are ANS members, and by helping compile and vet the materials that are handed out to the public through the pilot project.

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Shaffer was an undergraduate in electrical engineering at Duke University and a member of the Reserve Officer Training Corps when he was recruited into the Navy's nuclear power program. He spent almost eight years in the service, with his final tour as chief engineer on the flagship of the Atlantic Fleet Submarine Force.

On the commercial side, Shaffer has worked at the Vermont Yankee, Yankee Atomic, and Dresden nuclear power plants, and on the startup of Chinshan-1 and -2 in Taiwan. His career has also included stints with General Electric and Ludington Pumped Storage. Shaffer, who lives in New Hampshire, holds a master's degree in nuclear engineering from the Massachusetts Institute of Technology and served as the 2001 ANS Congressional Fellow.

Angwin received a master's degree in physical chemistry from the University of Chicago. She worked for the Electric Power Research Institute (EPRI) as a project manager in geothermal energy. She started working on high-temperature water chemistry codes and began associating

with people from EPRI's steam generator project office, which was her introduction to nuclear power. Soon thereafter, she joined that office.

After her stint at EPRI, Angwin went into business for herself in 1986 by founding Fourth Floor Databases Inc. She received EPRI contracts and worked with Consolidated Edison and the Swedish State Power Board on steam generator chemistry issues. After a time in California, she moved to Vermont and decided to do something about advocating for nuclear power. She is the owner of Carnot Communications, which helps firms to communicate technical matters, and she has also written an as yet unpublished mystery novel, titled *Nuclear Gentleman*,

that takes place in a nuclear power plant.

Angwin and Shaffer met after a letter to the editor of his was published in a Vermont newspaper. "I was pleased to see another pronuclear person out here in the Vermont/New Hampshire area," Angwin said. "I had to get in touch with him so that perhaps he could read my book and give me some advice. Then I discovered he was going to all these Vermont Yankee hearings. Up to then, I'd been fairly passive, but I knew that I had to get involved. That's how we began going around and trying to do things to support the Vermont Yankee plant."

Shaffer and Angwin talked with Rick Michal, *NN* senior editor, about their work as nuclear advocates.

How was the pilot project developed?

Shaffer: I've been a member of ANS's Public Information Committee for many years. I, along with Maureen Brown, of Constellation Nuclear's public information department, approached the PI Committee about doing something to promote nuclear technology in Vermont. Last year I wrote a proposal to the committee to do something in Vermont, which is the focus of a lot of very active national and international anti-nuclear groups because of the possible relicensing of the Vermont Yankee plant. What I proposed and what the committee approved was what has become the Vermont Pilot Project. We're working on doing what we can in Vermont in different areas where

What do you do to support Vermont Yankee besides going to public meetings?

Shaffer: We do everything we can—talking at the Republican Club in Barre on Saturday and at the St. Johnsbury Chamber of Commerce on Monday; speaking at Rotary Clubs in Stowe and St. Johnsbury and other places; putting on our own meetings at the Montshire Museum of Science in Norwich; appearing on community access TV and talk radio; writing letters to the editor; attending legislative hearings; attending regulatory hearings by the Nuclear Regulatory Commission and state agencies; and going to public meetings that are put on by the anti-nuclear organizations. I've pretty much specialized in attending the antinuclear meetings. They all know who I am now. We're always cordial, although we know we have different points of view.

How many people are active in the pilot project?

Shaffer: When we kicked off the project last fall, we coordinated with the ANS Northeastern

Local Section. We have a small number of people who volunteered to help out when they could, although they're from out of state. They're kept up to date on what is going on, and we'll call on them when the opportunities arise. It looks like that's going to be happening this spring with the new legislature in Vermont. We're going to need a lot of help trying to talk with lawmakers. But basically it is Meredith and I who do the legwork and attend all of the meetings and those sorts of things.

How did Meredith become part of the project?

Shaffer: Through her personal outreach efforts on behalf of Vermont Yankee. Her company does technical writing and advocacy work for the electric power industry and for others not in the utility business. Through her job, she was put in touch with the Ethan Allen Institute (<www.ethanallen.org/>), in Vermont, which is a nonprofit, educational organization run by a retired nuclear engineer who is a former member of the Vermont state senate. Meredith formed the institute's Energy Education Project (<www.energyeai.org/>), which does things like lining up speakers for meetings to talk about various energy options. So Meredith's main thrust is the Energy Education Project, but the point is that she and I—that is, the Energy Education Project and the Vermont Pilot Project—have been coordinating with each other and supporting each other very well.

Do you think that your efforts are making a difference?

Angwin: Absolutely, but I feel that there can't be a pronuclear movement unless there's a place for the pronuclear people to feel safe and respected. My first involvement in this advocacy started about a year ago in March when I went to a meeting in my town—you know, the famous direct-democracy New England town meeting. Vermont Yankee was up for discussion, because the opponents always try to put it on the town meeting agenda. I was just one concerned citizen, not connected to any group and with no agenda, and I stated that I was there in support of the plant. I had met Howard by then because of the book I had written, and we had prepared some handouts. I put them on a table in the lobby and stood next to them. A much bigger table was filled with glossy brochures from opponent groups. While a lot of people disagreed with me, about one-third of the people practically hugged me. They'd never seen anyone come and say what I had said in a public

“What is especially interesting is that we get accused of being paid by Entergy to promote nuclear power, but we're not and we say so.”

ANS members can be active, but where Entergy people cannot. What I mean is that while Entergy has a budget to promote the plant through things like newspaper ads, they stay away from the various public meetings because they're known as “paid people” from the plant. So, those of us in the pilot project go to meetings and provide the professional technical expertise in what is a very polarized political situation. What is especially interesting is that we also get accused of being paid by Entergy to promote nuclear power, but we're not and we say so. We're just people who feel passionately about the benefits of nuclear power.

venue. They would come up and tell me that they had a brother in the nuclear Navy, for example, or their daughter worked at the Millstone nuclear plant, or they'd always thought that nuclear was the way of the future. These people had never had any place to join or anybody showing up at these events. If you hate nuclear, there are so many organizations competing for your dollar, but if you're pronuclear and you're not a member of ANS, what do you do? What we're doing is going out there as much as we can—being on TV, debating people, holding meetings, and going out to places and talking to groups that will have us.

Shaffer: We're not doing it alone, of course. The plant is running a lot of pronuclear advertising, and there is the Vermont Energy Partnership, which is a business coalition that is interested not specifically in nuclear power, but in reasonable and competitive electric power prices. Representatives of that group show up at many business and association meetings to show their support for Vermont Yankee.

You both write the "View From Vermont" column for ANS's blog site, the ANS Nu-

clear Cafe (<www.ansnuclearcafe.org>). Meredith also has her own blog site, *Yes Vermont Yankee* (<<http://yesvy.blogspot.com/>>). *Do those writings have an impact?*

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Angwin: I went to a meeting of the Green Mountain Economic Development Corporation and I began talking with a man who turned out to be someone I was hoping to meet. I'd read an article about him in the newspaper. He owns a plastics factory in Vermont, and his business is expanding. I introduced myself to him and mentioned my blog, and he responded, "Oh yes, I wanted to meet you." He has stated in print that he is worried about Vermont Yankee closing because his plastics company already has a million-dollar-a-year electricity bill. He knows that closing the plant will mean an increase in electricity prices. I thought it was great when he said that he knew about my blog and had wanted to meet me. I like to feel that people have noticed the blog and that they feel there is someone on their side. The blog is important, but I think the public meetings and get-

ting out to the mainstream media is important, too. Both Howard and I have gotten on some radio talk shows. Being interviewed in a pronuclear way on drive-time talk radio, it hardly gets better than that!

Shaffer: There is a nuclear blog-reading community in Vermont, as Meredith has found out. She's well recognized now when she goes to a lot of places because of her blog. We know the grassroots support is there. Meredith and I take turns writing pieces for the "View From Vermont" column on the *ANS Nuclear Cafe* blog site. Having a biweekly article on the ANS blog has helped provide an additional social media platform for the pilot project. We're seeing the nuclear blogging community becoming more aware of what is going on in Vermont, as well.

Vermont's new governor, Peter Shumlin, campaigned on shutting down Vermont Yankee. Comments?

Angwin: Peter Shumlin ran against the plant at the beginning of the campaign. Every other word out of his mouth was, "We're going to shut down Vermont Yankee—get behind me!" But he was losing in the polls. Then he began to change his tune to other issues, such as healthcare, and he began pulling ahead. I would agree that most people in Vermont are against Vermont Yankee, but they're not strongly against it. Maybe 20 percent are strongly against it. The rest think, "Well, I've been reading all this

stuff, it sounds like it's pretty bad, we should probably shut it down." But they don't care that much. If you asked them if they were willing to pay an extra \$200 a year in their electricity bill to shut it down, they might say it's not worth that much to them. I think that without Vermont Yankee, our electric rates would go pretty high. And the job losses at the plant would be just the tip of the iceberg. There are a lot of small manufacturing businesses in Vermont—for example, of specialized medical equipment and rowing machines. They're good businesses and they're pretty high-tech, which means that they use a lot of electricity. We've already heard from several of them that they're very anxious about their electricity rates.

Are you reaching out to other state lawmakers? And, if so, do they understand things like the loss of employment and the tax base if Vermont Yankee closes?

Shaffer: Some of the lawmakers have deaf ears. They've definitely made up their

minds. In summary, it's an uphill political fight because of the 26-4 Senate vote last February not to allow the plant to continue operating. That vote was taken at the height of emotion over Vermont Yankee's tritium leak [see Power section, p. 29], which was exploited by the president *pro tem* of the Senate, namely Peter Shumlin. There were grumblings at the time, however, that he ramrodded the vote through. Those grumblings were heard again leading up to the inauguration, that he ramrods things through.

Angwin: Like most states, Vermont is suffering a budget deficit. Cutting out about \$10 million a year in tax payments that are made by Entergy and Entergy-supported businesses is not a good idea right now, when we have a \$120-million deficit. Another thing is that there are people who are against Vermont Yankee on very theoretical grounds—they think that society ought to be conserving and that cheap electricity is a bad thing. And then there are people who are against Vermont Yankee, but really their bread is buttered by Vermont Yankee. For example, in order for Vermont Yankee to put in dry cask storage, it had to cut a deal with the state. The deal was that Vermont Yankee would fund what is called the Clean Energy Development Fund to the tune of between \$2 million and \$6 million a year—there's a power revenue-sharing part that varies, so that's why I can't be specific. The long and short of it is that the deal ends in 2012. It's not clear that Governor Shumlin will be able to promise people that the amount of funding currently coming from Vermont Yankee is going to come from other sources. So, while some people may hate Vermont Yankee, they like the money that it brings in.

Could you highlight one of the activities that you've done to support Vermont Yankee?

Angwin: We have arranged to bring in author Gwyneth Cravens, who wrote *Power to Save the World: The Truth About Nuclear Energy*, a book about nuclear power and climate change. Almost every year the antinuclear activists bring in Helen Caldicott, who is antinuclear, to give out her books at the Vermont State House. We wanted to do the same thing from the pro side of the aisle. Gwyneth is scheduled to do a legislative roundtable panel at the State House. We're offering every member of the legislature the opportunity to get a free copy of Gwyneth's book. Gwyneth will also have an afternoon session with the University of Vermont's Gund Ecological Institute and an evening talk at the Sheraton Economic Series in Burlington. And she will attend a breakfast with members of the Vermont Energy Partnership, which is a group of business, labor, and community leaders committed to finding clean, low-cost, and reliable electricity

solutions for the state. Gwyneth will be a busy woman the day that she's here! We're also going to have Kathryn McCarthy, from the Idaho National Laboratory, come out to speak at the State House about Generation-IV reactors.

One thing I want to mention is that Howard and I went to a play about Chernobyl sponsored by the Sierra Club. When we walked in, there were handouts ac-

kee would be built, she was a 14-year-old in junior high school, and she was terrified. She's still terrified. At one of the NRC's meetings for Vermont Yankee last spring, she came in with a bag of compost and threw it at the Entergy people. She marched up to the table and sprinkled it all over the papers and in the water glasses of the NRC officials. Then she went outside and threw it on Entergy's cars. In another instance, I

went to a debate and found out that one of the leading anti-nukes from Maine had been living quite happily right next to the Maine Yankee nuclear plant and didn't even know it until the Three Mile Island accident happened. Then he became terrified. The same thing happened with someone

from Massachusetts who runs the Citizens Action Network. She was happy there until some events occurred at the Yankee Rowe plant that alarmed her. Some of these people who are driving these organizations became frightened or alarmed by some events that took place. We believe, however, that we have an understanding of what is driving them.

Where will the replacement power come from if Vermont Yankee is shut down?

Shaffer: The opponents argue that it will come from a combination of wind, solar, and biomass, with conservation and efficiency added in. The opponents use all these buzz words, but I've never seen a transition plan come out except for the one produced by the VPIRG (<www.vpirg.org/>), which is the Vermont version of the Public Interest Research Group founded by Ralph Nader. The VPIRG report shows that if Vermont Yankee is shut down in 2012, Vermont will be buying more electricity from the grid for four to five years, in addition to the one-third or more of the power that it already buys from Canada's Hydro Quebec. Their projections depend on an optimistic schedule for the installation of wind turbines, which it seems is already behind. The report also proposes an increase in wind turbine farms in the state, but there are people who oppose those. Ultimately, if you ask one of the anti-nuclear people what the transition plan is, the response is a lot of nothing.

Angwin: Howard and I are both members of the Coalition for Energy Solutions (<www.coalitionforenergysolutions.org/>). The people in the coalition have degrees in engineering, physics, or chemistry and have worked in these fields for a long time. When the VPIRG report came out saying that Vermont Yankee could be replaced with about

100 wind turbines, a couple of biomass plants, and a couple of solar photovoltaics, the coalition did an analysis of the report and countered with the fact that the state of Vermont doesn't have the money to do this. The coalition held a conference at the State House and invited the press. A national reporter was at the conference, but he walked out after 10 minutes with his VPIRG associate because they were friends. Unfortunately, that's the kind of coverage we're getting. Even when we answer something, it doesn't necessarily get a lot of play.

If the NRC approves Vermont Yankee's 20-year license extension, that's the technical support the plant needs. Can the state still order it shut down?

Shaffer: Yes, because as a condition of the sale of the plant in 2002, Entergy agreed to go to Vermont's Public Service Board to obtain a Certificate of Public Good. That's been discussed with the NRC in public meetings. It's come down to the fact that, yes, the NRC has jurisdiction on safety, and the state and the Public Service Board cannot consider safety in any decision they make about the plant. Otherwise they are treading on federal territory. They can consider other issues that concern the public good—the economy, the environment, and so forth—as the Public Service Board does for all the other utility issues that come before it, whether for cable TV, or cell phones, or gas, or whatever. The plant's current Certificate of Public Good expires on the same day as the plant's current NRC license. Ultimately, I think that the issue is going to wind up in court. The anti-nukes have gotten into federal court on a number of issues, so why can't Entergy?

Angwin: The plant's operating license and the certificate both need to be extended. Everyone is pretty sure that the NRC will extend the license. The plant has never been on the agency's watch list. It's a good plant. The state senate didn't actually vote to turn down Vermont Yankee—it voted to prevent the Public Service Board from releasing its findings. If the findings had been that Vermont Yankee was too expensive to operate and was unreliable, the senators would have let them be released. But, on the contrary, it's almost certain that the Public Service Board would have noted that the plant had met its criteria and would have voted to issue the certificate. In 2006, the state legislature passed a law taking control of what the Public Service Board releases. That, in my opinion, was a substantial amendment to Entergy's agreement in 2002 to purchase the plant. That amendment was made by only one of the parties to the agreement.

What lessons learned could you give to someone who might want to become involved in nuclear advocacy in their state?

Continued

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knowledging that the play was being sponsored by the Sierra Club, Beyond Nuclear, the Vermont Public Interest Research Group (VPIRG), the Citizens Action Network—just a list of all these antinuclear groups. We're not exactly at that level yet, but we like to think that someday we will be able to put on some kind of performance and announce that it was presented by the ANS Vermont Pilot Project and the Ethan Allen Institute Energy Education Project.

Do the general news media in Vermont recognize that there is a pronuclear faction out there?

Angwin: If it's a Fox News station, I'm pretty sure they know that there are a bunch of us out there. But if it's a regular news station, the attitude is that it might be amusing to have these people from outer space appear on the show.

Shaffer: This issue has become so polarized in Vermont that the media tend to align with one side or the other. It's hard to find somebody who is truly objective. Recently, however, I sat down with an editor for a Vermont newspaper. I had worked with him for six years or so, from the time when he was a beat reporter, and he used to call me to get quotations and explanations of technical issues. He realizes that people opposed to nuclear power are taking other than a scientific and engineering viewpoint on a lot of things. He's aware of the polarization. The day after I met with him, he published a very realistic editorial on Vermont Yankee.

Is a lot of the opposition deep rooted in Vermont?

Shaffer: Yes, definitely. One of the anti-nuclear people I talked to revealed that back when it was announced that Vermont Yan-

Shaffer: The first lesson learned from my experience is to pay attention to the people who know politics. Tip O'Neill said that all politics is local. Local people have to do it, and you have to know the local issues. Second, what Sen. Alan Simpson said in *Newsweek* last year is so true: "A charge unanswered is a charge believed." You have to stay engaged and you have to answer all the charges. You have to stand up to the opposition, otherwise people will believe them. For too long, the nuclear industry has not been responding on the local level, in words that the local people can understand, regarding the things that they're concerned about.

Angwin: I agree with Howard completely. If I were to add anything, I would say that we're scientists, so we want *the* answer, the magic bullet that is the way to do something. But there is no single magic bullet. We have to give technically correct information, but we also have to give it in a way that is approachable and doesn't make us seem arrogant. We have to get on TV whenever we can, and visit the Rotary Clubs and the other such organizations. Blogs and tweets are important, but they're not enough. What I'm saying is that it takes an effort of a lot of people. I think the most important thing that organizers can do is to be out there enough to show that something is happening that will get other people engaged.

Shaffer: You said the magic words there—magic bullet. Someone once said, "For energy solutions and environmental solutions, there is no silver bullet—it's silver buckshot." It's the same thing in this issue. We do everything we can all over the map in this big free-for-all called politics.

Looking forward, after the decision on Vermont Yankee is made, will you stay involved in nuclear advocacy?

Angwin: I would certainly hope so. What I would like to do is clone this effort. I think that there should be a pronuclear group near every power plant, near every reprocessing facility, or other nuclear facility. I would like to see a lot of people doing this, but they have to be local people, so that when an antinuclear group comes in with some kind of misstatement, somebody is there to answer it. Even after a decision is made on Vermont Yankee, and if the plant is kept in operation, there will still be a need for somebody or groups of people to answer charges. After all, antinuclear groups didn't stop bringing charges against the Oyster Creek nuclear plant when its operating license was extended.

Shaffer: My answer is yes, I will continue nuclear advocacy in Vermont. As Meredith pointed out, the opposition will never stop. The New England Coalition, formerly the New England Coalition on Nuclear Pollution, was started during the original licensing of Vermont Yankee, and it has never stopped. We need public outreach efforts on a continuing basis, not just when an issue comes up such as relicensing. I know from past history that there are some people in the American Nuclear Society who feel that as a professional organization, we shouldn't get involved with politics. I think that a professional organi-

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zation has an obligation to reach out to the public. As citizens, we need to be involved. We appreciate ANS's support through the *ANS Nuclear Cafe* and the Vermont Pilot Project Listserv, and its financial support. We are fortunate to be in a position to volunteer our time. **■**