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Wisconsin's League Against Nuclear Dangers: The Power of Informed Citizenship

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Wisconsin's League Against Nuclear Dangers
THE POWER OF INFORMED CITIZENSHIP

BY NANCY C. UNGER

Wisconsin's League Against Nuclear Dangers (LAND), a loose organization active in the 1970s and 1980s, was predominantly made up of white middle-aged and middle-class homemakers with minimal formal education in the sciences. The story of LAND is a powerful lesson in what people can accomplish when they take their rights as citizens seriously and commit themselves to learning a complex subject in depth in order to be knowledgeable and persuasive.

LAND is Born

In 1973, nuclear power was widely heralded as the safe and efficient solution to the growing energy crisis. In January, the Wisconsin Rapids Daily Tribune reported that Rudolph, a rural township in Wood County in central Wisconsin was being considered as a site for a nuclear power complex. Two months later, representatives from Wisconsin Electric, Wisconsin Power & Light, and the Wisconsin Public Service Corporation offered select Rudolph residents one hundred dollars or more for rights to test bore their land.1 At a public meeting in a school gymnasium on May 17, 1973, alarmed locals were not mollified by the assurances of utilities executives that the proposed plant posed “absolutely no risk.”2 In the audience was Gertrude Dixon, a resident of nearby Stevens Point. The retired high school English teacher was particularly incensed by the “utility vice presidents from the ‘big city’... in their $200 suits, with their colorful ‘information.’”3 She rejected their “no-risk assurances of nuclear safety,” and was offended by their threat that the plant must be operating by 1981 or Wisconsinites would

Stevens Point Daily Tribune photo, December 3, 1973. Members of Wisconsin’s League Against Nuclear Dangers (LAND) released balloons on December 1, 1973, to demonstrate the range airborne contaminants could travel if an accident occurred.
“freeze and starve to death.” Dixon believed that the growing energy crisis “should not panic us into accepting the ‘ultimate pollutant’—atomic power,” but “should make us demand, more than ever, that research be stepped up on bountiful, safe sources such as solar.” She believed that people should “learn to live within the natural limits of the earth’s energy—that of the sun,” rather than “produce man-made lethal substances to plague our earth for generations to come.” Perhaps most significantly, she was outraged by how the utilities’ officials “arrogantly declared that public opinion would have no effect on plant siting.”

It looked at first “like a hopeless David and Goliath confrontation.” The fatal mistake by the speakers, according to Dixon, was that “they grossly underestimated the intelligence of their audience and insulted the dignity of people aware of constitutional rights.” Sustained by “a love of the land, by a respect for life and a belief that the will of an informed public will not allow the fission proponents to destroy our world,” Dixon was emboldened rather than cowed. As the tension mounted, “murmurs of anger arose from the packed school gym, and LAND was born.” When local residents expressed their concerns together, feelings of hopelessness, fear, and anger over events planned in their community by outsiders were replaced by a sense of unity, strength, and purpose. They were proud to be participating in a nascent grassroots effort, which for them “epitomized the ideal of democracy in action.” Most importantly, “they expected democracy to work.”

The Structure of LAND

Dixon realized that the outrage she shared with her neighbors was not enough to stop the proposed plant, and she was determined to acquire the knowledge necessary to “sustain, justify, and spread the anger.”15 Confident in her own intelligence and that of her neighbors, Dixon helped to form LAND “for the purpose of gathering and distributing information relative to nuclear power and providing citizen input concerning decisions.” LAND membership was open to anyone who wanted to join. In Dixon’s words, “farmers, professors, businessmen, housewives, [and] children” all took part in the group’s formal organization, which took place in the Rudolph Town Hall on May 31, 1973, two weeks after the presentation by the utilities’ executives.16 The group met there, in Rudolph’s Moravian church, or in a member’s home on a monthly basis. Members kept in touch via a phone tree as well as through a newsletter, The LAND Story, edited by Dixon, who was also the organization’s research director.

Rudolph resident Naomi Jacobson and Michael Hittner of Wisconsin Rapids served as cochairs.17

In its heyday (1973–1979), LAND enjoyed much student support, both at the high school level and at UW–Stevens Point, where Gertrude Dixon had occasionally taught English and her husband George Dixon served as professor of sociology and social work. University faculty, particularly George Dixon, provided advice, and the university’s lecture series funded homo-
rium and travel expenses for experts to speak on nuclear power. The students' Environmental Council also sponsored various events in coordination with LAND, including debates.12

LAND membership quickly grew to more than seven hundred members representing over forty communities.13 As the organization grew in size and sophistication, Dixon also served as director of LEAF (LAND Educational Association Foundation), the organization's tax-exempt arm, established in 1974.14 Although LAND membership was available to anyone willing to pay the minimum dues of three dollars, Dixon's first challenge was to mold its core—fulltime homemakers uneducated in the sciences and new to political activism—into a meaningful political force. For much of American history, female activists had asserted that most men were, as their families' breadwinners, dedicated to exploiting the earth's resources for profit, while women's roles left them uniquely qualified to become "nature's housekeepers," ensuring environmental protections for future generations.15 "Just housewives" were, according to one scholar, "naturals" for activist work because their prescribed role as the primary caregivers to their children had previously involved them in broad humanistic and nurturing issues; their interactions with other activists were minimally contentious, and their dearth of conventional power left them with little to lose.16

"Get Back in Your Kitchen, Lady"
Individually and in groups, women across the nation campaigned to ban the bomb, clean up rivers, save forests, and stop pollution. Women's organizations that were particularly active in promoting environmental awareness and protection included the League of Women Voters, the American Association of University Women, the Federation of Women's Clubs, and the Garden Club of America.17 Their opponents used traditional gender stereotypes to undermine the authority of women's organizations. For example, a member of a group of California homemakers opposing the construction of a highway was dismissed by the project engineer with a sneering, "Get back in your kitchen, lady, and let me build my road!"18

Clean air activist Michelle Madoff anticipated just this kind of demeaning rejection when she stated, "I didn't want to go and testify [before a board] and be branded another idiot housewife in tennis shoes, as we're referred to—you know, uninformed, emotional."19 Many women sought alternatives to traditional political action, responding to the challenge of raising the nation's environmental consciousness in a variety of creative ways. In the 1960s and 1970s, some borrowed tactics including political theater and other innovative protest methods that were being used effectively by the student and antiwar movements.20 In Wisconsin, LAND embraced both traditional and unconventional forms of activism.

Atomic Energy Comes to Wisconsin
The state's first atomic power plant, the La Crosse Boiling Water Reactor (LACBWR), was built by the Dairyland Power Coop...
erative outside of Genoa, Wisconsin. Dairyland began seeking permission from the Atomic Energy Commission (AEC) to pilot a plant in 1954, back in the heady days when “nuclear power was rapidly becoming the pre-eminent symbol of American progress, modernity, and technological know-how.”

Construction began in 1963, but, due to a series of setbacks, problems, and repairs, the plant did not begin generating electricity at its full capacity until 1971. The Point Beach nuclear power plant near Two Rivers in Manitowoc County, hailed as “a culmination of historic progress,” went into commercial service late in 1970, joined by a second reactor in 1973. In 1974, an additional atomic plant in nearby Kewaunee County began its commercial operation. Almost immediately, LAND’s fears of contamination were realized, as radioactive particles in milk and the mortality rate for low birth weight infants both increased, linked to the low-level radioactive gaseous releases from the new nuclear power plants. Although the LACBWR closed in 1987, the Point Beach and Kewaunee plants remained in operation as of 2012, providing about one-fifth of the energy generated in Wisconsin. Both plants have experienced incidents that confirmed LAND fears that nuclear facilities in Wisconsin are not immune to accidents and malfunctions.

“When Even the ‘Experts’ Don’t Know”

Ridiculed for their lack of scientific credentials (many, including cochair Naomi Jacobson, had no college education) and dismissed by utility officials as “illigical, emotional housewives,” LAND members educated themselves about nuclear hazards. Their refusal to accept that only a “nuclear expert” was qualified to assess nuclear risk was key. “No such animal exists,” Gertrude Dixon asserted flatly, noting that “Expertise in this field requires knowledge in the fields of economics, biology, physics, engineering, politics, agriculture, geology . . . to name a few,” LAND members found that “experts” paid by the utilities to promote nuclear power “usually had degrees in Journalism, Communication, Business Management, or, particularly for women audiences, Home Economics.” It occurred to them “that if these people could after a 6-week public relations course claim to be nuclear experts,” then “with a little application” they could too.

LAND urged all Wisconsinites not to be intimidated by their lack of scientific credentials. A typical letter to Wisconsin legislators inspired by LAND begins, “I am no scientist, but then neither are most of you in whose hands we citizens have placed the responsibility of making wise decisions for the good of the people.” The letter concludes, “When even the ‘experts’ do not know, I think it is time to call a halt to this madness called progress, and I urge you to vote yes for the proposed moratorium on building any new nuclear power plants in the state of Wisconsin, at least until we know what we are doing.” Letters expressed LAND’s concern that true expertise was lacking in a variety of crucial areas, including evacuation planning, the short- and long-term problems associated with disposal and storage of nuclear waste, and the assessment of radiation releases and special hazards to nuclear workers. This “no one really knows for sure” argument was not, however, LAND’s trump card. In her essay published in No Nukes: Everyone’s Guide to Nuclear Power (1981), Gertrude Dixon wrote, “I cannot stress enough the necessity for us to constantly educate and reeducate ourselves. Only through in-depth knowledge will we gain the self-confidence to address the public effectively. Only through the tortuous route
of constant reading, searching, and thinking will we and the public learn that the utility ‘experts’ are really only poorly informed public relations agents at best; that at worst, the better-informed nuclear proponents are masters of evasion and cover-up.”

For Dixon, this meant requesting and carefully studying materials by the AEC. She urged other activists to approach sophisticated materials with confidence: “Don’t be dismayed by the jargon and the volume of paper [in public documents]. Many important facts lie there awaiting discovery.”

It was in an AEC document that LAND discovered a report critical of radiation monitoring, leading LAND to focus less on possible problems, like meltdowns and sabotage, and more on proven, unavoidable problems, like low-level radiation emissions. LAND did not, however, ignore entirely the specter of nuclear accidents. In 1978, it published Naomi Jacobson’s *Emergency Evacuation Planning for Nuclear Power Plants*, a twenty-seven page booklet emphasizing the growing possibility of catastrophic accidents in the expanding nuclear industry.

This card featured “Ready Kilowatt” and had an imitation nuclear fuel pellet mounted to it. The card was produced by the Wisconsin Public Service Commission.

Radiation detector manufactured by Eberline Instrument Corp. of Santa Fe, New Mexico
"Being knowledgeable is one thing," Dixon conceded, adding that "giving [that information] to others is the most difficult and necessary follow-up." The study "Radiation Levels in Milk and Pregnancy Outcomes in Wisconsin," coauthored by Dixon, begins, "It has been one of the founding ideals in the United States that participatory democracy is desirable. If citizens are to participate in decisions which affect present and future life in this country, there must be [a] free flow of meaningful information essential for such decision-making." Moreover, Dixon asserted, "We have always assumed that the ordinary American citizen can understand the basic issue [of atomic energy] and that, having understood, has a constitutional right to voice a decision." She concluded emphatically, "This is our land!" Her confidence in ordinary citizens was not misplaced. In her 1981 essay for No Nukes, Dixon notes, "Much of LAND's success must be credited to the watch-dog persistence of the citizens in the town of Rudolph, who [by an advisory referendum of 308–189] reversed the initial approval of the proposed plant by the Town Board," adding, "County board of supervisors' opposition to the plan has increased from eight percent to 47 percent. People can and do change their minds."

**LAND Opposes a Nominee to the Public Service Commission**

In 1979, LAND opposed physics professor Monica Bainter's proposed appointment to the state's Public Service Commission (PSC), which was considering applications for the construction of two nuclear power plants. Bainter, nominated by Wisconsin governor Lee Dreyfus, believed the problem of nuclear waste disposal to have been "exaggerated," and she deemed "ridiculous" the PSC's newly declared moratorium on planning any additional nuclear plants. "It is hard to know what infuriated LAND most about the Bainter nomination: Dreyfus's assertion that Bainter had "proven expertise in the field of energy"
or Bainter’s statement that “We just can’t avoid a couple more nuclear plants in Wisconsin.”

Bainter emphasized her expertise as a physicist, saying pointedly, “Very few physicists are opposed to nuclear power. The scientists who are opposed are biologists and social scientists. Very few biologists have ever sniffed a physics book.” Questioning Bainter’s expertise, Gertrude Dixon researched her dissertation, “A Study of the Outcomes of Two Types of Laboratory Techniques Used in a Course in General College Physics for Students Planning to be Teachers in the Elementary Grades,” and concluded derisively that it was more about education than physics.

LAND’s Naomi Jacobson (who had debated Bainter publicly on nuclear power before Bainter’s nomination to the PSC) sent some of Bainter’s more controversial assertions to Edward A. Martell of the National Center for Atmospheric Research in Boulder, Colorado. Martell confirmed that Bainter’s statements were “grossly unscientific.” In her public attacks on Bainter, however, Jacobson hammered on a more basic charge, that Bainter’s confirmation would pose a financial burden to Wisconsin residents. Nuclear power plants, Jacobson stated in a press release, were “much more costly than coal fired plants . . . which means a greater rate of return to the utilities.” She stressed, “It will be the consumers who will fund these projects through higher rates.” In the end, Bainter withdrew her candidacy.

Teaming Up with the Rebel Nun

Many of the written materials circulated by LAND were based on information provided by Rosalie Bertell, the Roman Catholic so-called “rebel” nun. “The reason citizens’ groups [opposing nuclear power] break is that they can’t answer the technical questions,” asserted Bertell, adding, “If you can help them over that hurdle, they can get their own action.” Bertell earned her PhD in mathematics with an emphasis on biometrics from the Catholic University of America before serving as research professor at the Graduate School at the State University of New York at Buffalo, and senior cancer research scientist at the Roswell Park Memorial Institute. Honors for her dedication to exposing the health hazards of nuclear power and weapons testing would ultimately include the Right Live-

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higher incidence of cancer than predicted. Certain that
"radiation levels, even those considered safe by federal regu-
latory agencies and industry, cause serious health problems,"  
Bertell urged "a ban on nuclear power plants and reductions 
of permissible levels of radiation for workers in government 
installations and private industry."58

Gertrude Dixon and Naomi Jacobson carried out their
own research as well. With George Dixon, they published the
sixteen-page pamphlet Nuclear Waste: The Time Bomb in 
Our Bones in 1979.49 Also in 1979, Jacobson and the Dixons 
published their collaboration with University of Minnesota 
nuclear engineer Charles W. Huver, Methodologies for the 
Study of Low Level Radiation in the Midwest, an evaluation 
of how much radiation children growing up in Wisconsin 
were receiving through the food chain as a result of radioac-
tive fallout from atomic weapons tests.50 Noted nuclear radi-
ation authority John Gofman praised the study, observing 
that "careful research can be better done by 'non-experts' 
with a dedication to truth than a carload of 'experts' with a 
vested interest."51

LAND's Brand of Consciousness Raising

In addition to publicizing Bertell's findings as well as their 
own, LAND used innovative consciousness-raising techniques 
that required no specialized knowledge to appreciate. They 
were inspired, for example, by the wildly successful Burma-
Shave advertising campaign, in which some 7,000 sets of verses 
(for a total of approximately 42,000 signs) were posted along 
highways in forty-five states.52 In the classic Burma-Shave 
series, each verse is posted on a separate sign, with the final 
sign always reading, "Burma Shave."53 For example:

Does your husband
Misbehave
Grunt and Grumble
Rant and Rave?
Shoot the Brute
Some Burma Shave54

In LAND's version, the signs read:

Nuclear Leaks
Can Cause
Human Freaks55

Despite constant funding shortfalls (which members
attempted to offset with bake sales, auctions, paper drives,
and the like), LAND held parades, designed billboards, staged 
public debates, sponsored speakers, and addressed church 
groups, service organizations, and chambers of commerce.
They wrote endless letters to the editors of local papers and
to elected officials and testified before various governmental 
bodies and officials, including state legislators in Madison.56
When denied the opportunity to speak (including at a county 
board meeting, a local utility office, newspaper offices, and at 
state hearings), they picketed. All their public acts were crucial,
proclaimed Dixon, for "nuclear proponents cannot survive 
public scrutiny—every public confrontation reveals truths 
about nuclear hazards which would otherwise remain hidden 
forever in document rooms and executive suites."57

On December 1, 1973, LAND staged perhaps its most 
popular form of protest—the release of a total of two thou-
sand red balloons from four proposed nuclear sites. The 
balloons were tagged with postcards describing the various 
radioactive substances they represented.58 Finders returned 
the postcards to LAND from as far away as West Virginia, 
vividly demonstrating the traveling range of airborne contami-
nants. LAND organized another release on August 7, 1977, to mark the thirty-second anniversary of the atomic bombing of Hiroshima and Nagasaki. Some five hundred balloons were launched from Rudolph and from Plover, nine miles downwind of a proposed reactor. Attached to each balloon was a leaflet citing the various cancers, genetic defects, and shortened life associated with radiation. “This is our way of alerting the public to this pollution danger and of tracing the path of fallout,” explained Naomi Jacobson. LAND combined that message with a reminder that the expensive and dangerous nuclear power program was diverting attention and funding away from the development of safe and abundant alternative sources, including solar.

**Beating the Monster**

The total number of proposed nuclear power plants in Wisconsin ultimately grew to eight. Six had already been rejected by 1979, when the Wisconsin Public Service Commission bowed to widespread opposition and rejected an application for plant licensing in Tyrone, outside of Eau Claire. The utilities themselves canceled their licensing intentions for Haven, Wisconsin, in 1980. “We won, we beat the monster,” noted one LAND member, adding that the “sweet victory” was “gratifying for all the small Davids to confront Goliath and come out on top.” How much credit belongs specifically to LAND is impossible to know. In the previous year the world had witnessed the partial core meltdown at Pennsylvania’s Three Mile Island nuclear power station, an event that had a chilling effect on the atomic power industry nationwide.

In Gertrude Dixon’s assessment, “the citizen opposition had a great deal to do with the initial decision by the utilities not to pursue the Rudolph site,” adding that the final decision to cancel all plants was based in the fact “that the radiation-waste problem had not been solved.” She also noted that as nuclear power was losing public support, LAND’s membership was growing: “we publish between 1500 and 2000 newsletters... [and] have members all over the world.” In 1983, the year of LAND’s tenth anniversary, the Wisconsin legislature declared a moratorium on new reactors.

That same year, two local politicians assessed the degree of LAND’s influence. State Assemblyman David Helbach (D-Stevens Point) said, “I would give LAND almost total credit for the fact that a nuclear power plant was not put in Rudolph back in the 70s. I think LAND was one of the few groups in the whole state that was questioning not only the safety and environmental problems of nuclear power, but the economic problem as well. At that time they were very, very effective.” Helbach also praised LAND’s ongoing efforts: “[T]heir research raises a lot of questions which, as a policy-maker, I’m forced to address.” Lon Newman, Portage County Democratic Party chairman, echoed Helbach’s assessment of LAND’s research, calling the organization’s written materials and publications “very good,” and “extremely helpful.”

The Chernobyl accident in the Ukraine in 1986 made even some of LAND’s more dire predictions appear less like the rantings of fanatics and more the reasoned warnings of long-time experts. The group formally disbanded two years later, with some members becoming active in state, national, and international groups concerned with nuclear and other energy issues. Former members shared a sense of satisfaction gained from “playing a meaningful role in educating the public regarding the nuclear power issue,” as well as feelings of camaraderie and self-confidence. Many spoke of their activism within LAND as an exhilarating and empowering experience, making them better people and better citizens.
of their actions did not disappear with the dissolution of the organization. Gertrude Dixon's passing in 1999 was noted in the newsletter of the Wisconsin Resources Protection Council, which praised her as an "environmental warrior." Her only child, Cassandra Dixon, a union-member carpenter, carries on the family tradition of antinuclear protest and is active in the Wisconsin Network for Peace and Justice.67

A Ongoing Controversy

Promoters of nuclear power today point out that Wisconsin rests on what geologists call "the stable craton," virtually immune to earthquakes and unreachable by tsunamis. The nuclear safeguards at Point Beach are so redundant they were described by one official of the Wisconsin Electrical Power Company (predecessor to We Energies) as comparable to "a man who wears a belt, puts on suspenders and then sews his pants to his shirt." Critics counter that a nuclear facility need not be in an area as seismically active as Fukushima to experience earthquakes, flooding, or sabotage. They add that, since plans to build a nuclear waste storage site in Nevada have been scrapped, the danger posed by mounting radiation in the form of uranium rods stored in spent fuel cooling pools remains endemic to all areas housing reactors. As noted in the Milwaukee Journal Sentinel on March 15, 2011, under the headline "Crisis in Japan Revives Debate over Nuclear Power in Wisconsin," state legislators disagree whether to lift the state's long-standing moratorium on nuclear plant construction.69 The history of LAND demonstrates the potential for influence in that debate, and others, by the informed activism of ordinary, ostensibly powerless citizens.68

Above: Promotional button, 1970-1984
Gertrude Dixon, the founder and face of LAND
ABOUT THE AUTHOR


Notes
7. Fish, “We Stopped,” 18.
8. Ibid.
10. “A Short History.”
12. Ibid., 105.
13. “A Short History.”
18. Ibid., 540.
19. Ibid.

26. In 2004, for example, the Kawaiju plant temporarily shut down when lake weeds and oil obstructed the heat exchangers in the core’s cooling system, and a year later the plant shut down again as major modifications were made to reduce a “substantial” risk of flooding. Problems at the Point Beach plant include an explosion in a dry case of nuclear waste that necessitated closure for two months between 1996 and 1998, with an additional closure in 2005 when a circulating water pump failed, Anthony Gali, “Rethinking the Mononoterm on Nuclear Briefs,” Wisconsin Briefs to The Legislative Reference Bureau, Brief 06-7, May 2006, p. 5, www.thedailyadvocate.com/search/3405592/BDP/download_documents/66e52.pdf.
27. Fish, “We Stopped,” 12.
31. Ibid.
32. Ibid.
36. Ibid., 20.
40. Hayes, “Nominee Sure.”
54. Buyways, 77, 82.
56. Fish, "We Stopped the Monster," 9.
61. Fish, "Widening the Spectrum," 106.
62. Lane, "LAND of the Giant-Killers.
64. Fish, "We Stopped the Monster," 8.
67. Fish, "We Stopped the Monster," 8.
68. Bufl, 9-14, 16.
70. Gards, "Our Nuclear Past."