THE ENVIRONMENTAL COALITION ON NUCLEAR POWER: MISSION STATEMENT AND A BRIEF HISTORY OF NUCLEAR POWER IN PENNSYLVANIA*

Background and Early History of Nuclear Energy in Pennsylvania

Pennsylvania was an early host for the nuclear industry. The Westinghouse Corporation had, and has, its headquarters in the Pittsburgh area, with extensive nuclear energy research facilities for military and commercial uses of the atom. In competition with the General Electric Company and its boiling water reactor (BWR) design, Westinghouse had developed a double-loop coolant pressurized water reactor (PWR) to meet the needs of the Navy's nuclear submarine program. Both giant firms, joined by Combustion Engineering (now ABB) and Babcock and Wilcox, continue as vendors of nuclear power reactors, in the United States (but with no new orders that have been completed operated since 1974), and now with "advanced" reactor designs to sell worldwide. Despite the crashing failure of nuclear power on every count, this industry still hopes and plans for rejuvenation of reactor sales in the U.S. within one to two decades.

The nation's first nuclear power reactor was hooked into the commercial utility grid of Duquesne Light Company in 1956, when President Dwight D. Eisenhower threw the switch to usher in the commercial atomic energy era at Shippingport, on the Ohio River near the Ohio state line. It was a small Westinghouse PWR built for the Navy. Soon after, Peach Bottom-1, the first gas-cooled reactor, was built by Philadelphia Electric Company at Delta in York County on the Susquehanna River, just upstream from the Maryland border.

The Shippingport reactor, later used for thorium breeder experiments, has been dismantled, its pressure vessel sent by barge for burial as "low-level" waste at the Department of Energy (DOE) Hanford weapons reservation in Eastern Washington. Peach Bottom-1 has been closed for over twenty years but not fully decommissioned. Research reactors in the Commonwealth included Westinghouse's Waltz Mill, which experienced a serious accident in the early 1960's; Penn State's Breazeale reactor on the University Park campus and, for a time, the Quehanna reactor, located in the Quehanna Wild Area near the Clinton-Clearfield County line, originally built to test a nuclear-powered aircraft engine, then used for irradiation of wood products; and General Public Utilities' (GPU) experimental Saxton plant in Bedford County, which operated in the 1960's and early 1970's with a partial plutonium core, now being decommissioned.

* Prepared by Judith H. Johnsrud, Director (814-237-3900). For the early years of nuclear energy in Pennsylvania and ECNP formation, see Richard S. Lewis, The Nuclear Power Rebellion: Citizens vs. the Atomic Industrial Establishment, Viking Press, 1972; Bekki Guilyard, "Quehanna" (award-winning newspaper series) c. 1986; and Judith H. Johnsrud, A Political Geography of the Nuclear Power Controversy: The Peaceful Atom in Pennsylvania, Doctoral Dissertation, The Pennsylvania State University, 1977.

Numerous other radioactively contaminated industrial sites in Pennsylvania are being cleaned up under a Federal remediation program. The Environmental Protection Agency (EPA) has estimated that, of some 45,300 sites identified nationally, Pennsylvania has as many as 922 sites that are radioactively contaminated or potentially contaminated.

Atoms for Peace: Plowshare Project Ketch

Early in 1967, Central Pennsylvania was proposed as the site for a "Peaceful Atom" Plowshare Project: "beating swords (nuclear bombs) into plowshares" (It was President Eisenhower's Atoms for Peace program). Plans were announced for the explosion underground of more than 1,000 nuclear bombs, each one twice the size of the Hiroshima bomb, to create storage chambers for natural gas. The gas, to be "liberated" by the same deep underground nuclear explosions on the Western Slope of the Rockies, was to be sent east, mixed with non-radioactive gas, and stored for distribution in these nuclear bomb-created caverns under the Allegheny Highlands of Western Pennsylvania. The feasibility study was code-named "Project Ketch," to be tested on State forest land. It ended in July 1968, following a year of strong citizen opposition: the beginning of the end for the Plowshare Program, deauthorized by Congress. But, commercialization of the atom had found an interested buyer in the investor-owned electric utilities, underwritten by the Congressional Joint Committee on Atomic Energy that provided Federal subsidies and industry protection from liability under the 1957 Price-Anderson Nuclear Insurance Act that limited compensation to $560 million in the event of a serious reactor accident. The nuclear utility industry planned to have 1,000 power reactors operating by the Year 2000.

LMFBR -- the Liquid Metal Fast Breeder Reactor

A year later, Pennsylvania Electric Company (Penelec) and the Atomic Energy Commission (AEC) announced a joint demonstration Liquid Metal Fast Breeder Reactor (LMFBR), to be built on the North Branch of the Susquehanna River near Meshoppen in Wyoming County. The breeder was, with "spent" fuel reprocessing, key to the so-called nuclear fuel cycle. In theory, fissionable uranium-235 with a blanket of U-238 could "breed" enough fissionable plutonium-239 to fuel other reactors. However, use of potentially explosive sodium as coolant made the LMFBR an especially dangerous design. The radiological and chemical hazards of plutonium-239, with a hazardous life of 500,000 years, have caused it to be called the most lethal substance known to humankind. Accidents at the AEC's EBR-2 demonstration plant and in 1966 at the Enrico Fermi reactor located on Lake Erie thirty miles from Detroit and Toledo, Ohio, had validated safety concerns about sodium-cooled, plutonium-producing and -fueled reactors.

In Pennsylvania, a storm of public protest, led by the Citizens Committee for Environmental Concern (an ECNP founding group), forced AEC in 1971 to withdraw the LMFBR to a safer political climate at Oak Ridge, Tennessee, where it

became known as the Clinch River Breeder. But this three-year delay in the program was long enough that national concerns had consolidated. The Clinch River Breeder was later halted by President Jimmy Carter, in exchange for reduced opposition to light water reactors by many national environmental groups.

The Light Water Reactors

By the end of the 1960's, most major Pennsylvania utilities were committed to commercial nuclear power. It was the era of Reddy Kilowatt ads promising nuclear electricity "safe, clean, reliable, and too cheap to meter." At the start of the 1970's, BWR plants were announced for Limerick, Newbold Island (not built), Peach Bottom-2 and -3, and later for Susquehanna at Berwick, and Fulton (cancelled) in Lancaster County. PWR designs were chosen for Three Mile Island (Babcock and Wilcox) and Beaver Valley (Westinghouse). Plans were laid for some 26 reactors on the Delaware River alone by the year 2000. In 1970 Pennsylvania's Senate held the nation's first state-level legislative hearings on the safety of nuclear power reactors. Dr. John Gofman, distinguished physician and scientist, came from California to testify, as he had also done on the LMFBR; nuclear proponents derided him as a bearded hippie in sandals.

Founding of the Environmental Coalition on Nuclear Power, 1970

In response to the enormous commitment in Pennsylvania to the uses of nuclear energy, the Environmental Coalition on Nuclear Power (ECNP) was formed in November 1970. Still in existence a quarter of a century later, it is one of the nation's oldest regional grassroots citizen organizations founded in opposition to the development and uses of nuclear energy and in support of conservation, efficiency, and safer, sustainable renewable sources of energy.

Representatives of some fifty small and a few large citizen organizations met at Fellowship House Farm, a rural retreat of the Philadelphia Arch Street Friends Meeting, located within a few miles of the Limerick reactor site on the Schuylkill River. Interest of most attendees was then focused on the cluster of reactors about to be licensed for construction in Southeastern and South Central Pennsylvania. New Jersey residents, living downwind, were represented, as were the successful opponents of Project Ketch and the LMFBR.

ECNP was guided from its inception by the wisdom and principled commitment to peace, health, and the environment of the late Victor and Marjory Paschkis. Dr. Paschkis had been an early leader in the formation of the movement for social responsibility among scientists and engineers. Two environmental engineering graduate students at Drexel University, Doug Baker and Carl Simon, were elected to chair the umbrella organization. The office and center of ECNP activity were in the Philadelphia area with members and groups in Northeastern, Central and Southwestern Pennsylvania, and New Jersey, Delaware, and Maryland.

Unlike many similar organizations and NIMBY (Not In My Back Yard) groups, however, ECNP developed with an enduring comprehensive concern for the entire system of nuclear energy production and use, reactors and weapons, from uranium mining to radioactive waste isolation, and for sustainable energy policies and safe alternatives to the atom.

The first major decision of the fledgling ECNP was to intervene in the then-AEC construction license proceedings for Limerick and Newbold Island, beginning in 1971 and continuing for more than a decade; much later in the construction permit and/or operating license proceedings for Peach Bottom in the mid-1970's; Three Mile Island, commencing in 1972 (seven years before the TMI-2 accident); Fulton; Susquehanna; and Beaver Valley. In the Newbold Island case, ECNP and other intervenors demonstrated the unacceptably high population density that ultimately caused the application to be cancelled at that Delaware River site located only 7 miles from Trenton, 11 miles from Philadelphia. But it was revived as Hope Creek at the Salem, N.J., site downriver on the Delaware River estuary. The Fulton reactors, in Lancaster County opposite Peach Bottom, were cancelled altogether, as were proposed Portland and Blue Marsh sites.

Early on, ECNP joined with the New England Coalition on Nuclear Pollution, the opponents of the Indian Point reactors in the Hudson Valley, the Western Michigan Conservancy and other Michigan groups, and others, to form an umbrella litigation group, the National Intervenors. The National Intervenors entered into two major generic rulemaking proceedings of the Atomic Energy Commission in the early 1970's: for Emergency Core Cooling Systems (ECCS), and for radiation exposure standards As Low As Practicable (ALAP, which became "As Low As Reasonably Achievable," now called ALARA, based on costs of emissions control). Those cases resulted in improved reactor safety and in lower levels of radioactive emissions. ECNP retains its focus on national and international perspectives, integrating the effects of all parts of the nuclear fuel cycle.

Intervening jointly with ECNP, the York Committee for a Safe Environment had a significant win in the Peach Bottom 2 and 3 licensing. The NRC was required to apply its emissions standards and ALARA to a multi-reactor plant site as a whole, rather than reactor-by-reactor; this requirement reduces the potential maximum exposures of offsite individuals.

Energy Parks: Nuclear Energy Centers, "Nuplexes"

By the mid-1970's, the electric utilities were stymied by determined citizen opposition and legal interventions at almost every reactor site. It had become impossible for a utility to build a reactor anywhere near its urban markets. So a consortium of Pennsylvania utilities was formed by Philadelphia Electric (PECO: Limerick), Pennsylvania Power and Light (PP&L: Susquehanna reactors at Berwick), Penelec and Metropolitan Edison (GPU: TMI), to site a gargantuan energy production complex in rural Pennsylvania: 20,000 megawatts of generating capacity on an 80 square mile site,

with ten 1,000 MWe reactors and ten 1,000 MWe coal-fired units, forty cooling towers. More than sixty areas were surveyed, with ten candidate sites selected one on the Centre-Clearfield-Clinton County border, and in Monroe, Bradford, Tioga, Susquehanna, Mercer, Erie, McKean, and Montour Counties and the Laurel Highlands.

The industry's underlying purpose was ultimately to consolidate most activities of the nuclear fuel cycle on a single site: uranium enrichment, fuel fabrication, reactors, "spent" fuel reprocessing, plutonium breeders, and eventually waste disposal. Their rationale was that national security could be better assured, with surveillance of the surrounding sparse rural population. Dr. Alvin Weinberg at Oak Ridge called them "nuplexes." NRC called them nuclear energy centers. Pennsylvania was to be the national test case.

For 51 weeks in 1976, the role of ECNP was to provide background documents and explanations of the Energy Park proposal to the public, encouraging each affected community to do its own analyses of the risks and benefits of hosting such a project. Public opposition was almost total, with the exception of the building trades unions, the utilities, and some in state government. The year-long battle to defeat the concept of huge generating centers was a prime demonstration of the ability of grassroots citizen groups to coalesce into an effective political force, capable of preventing environmentally damaging corporate activities. The Environmental Coalition kept these community-based groups statewide informed of progress. Contrary to the industry's expectation that people at potential sites would be in conflict, the grassroots came together with a power that essentially ended the era of such gigantic industrial projects. Energy Parks were quietly dropped on January 23, 1976.

Soon thereafter, Chem Nuclear Systems, Inc., approached the Governor's Atomic Energy Advisory Committee, seeking a waste disposal site in Pennsylvania. ECNP took a lead role in the early vocal opposition to waste acceptance. The NRC did not then recognize the waste categories in use today, but "low-level" is still an "all but" waste category. Coming on the heels of the energy park firestorm, Chem Nuclear's plans were rejected -- for a while.

The concern for environmental protection had been gaining strength during the early 1970's after passage of the National Environmental Protection Act in 1969. Ralph Nader's Critical Mass conferences in 1974 and 1975 had begun to create a national movement. In 1976, ECNP initiated a regional organization that played a major role in the growth of the national anti-nuclear movement.

The Eastern Federation of Nuclear Opponents and Safe Energy Proponents

The Energy Park issue had clarified that, despite the National Intervenor litigation group, there was a dearth of interstate and regional communication and coalescence on nuclear power in the mid-'70's. In particular, Northeastern Pennsylvania members had lamented lack of information and interest in New York State's Southern Tier Counties, bordered our Northern Tier Counties with Energy Park sites. This remarkably

impermeable political barrier was joined by two other sets of barriers to effective citizen action on nuclear energy issues.

One barrier was the disconnect between nuclear power critics and activist communities promoting conservation, energy efficiency, and reliance on alternative renewable sources for generation of electricity and other power needs. In 1976, ECNP was invited by then-Governor Shapp to join his Energy Council Advisory Committee, on which ECNP was represented for half a dozen years, until the next governor, Richard Thornburgh, phased it out. As the sole environmental voice on that Advisory Committee composed of energy industry proponents, the ECNP representative tried, in vain, to gain support for policies promoting conservation, efficiency, and sustainable energy for Pennsylvania.

The other barrier was the continuing gulf between nuclear power opponents and many in the Peace Movement who had deep concerns about nuclear war and the spread of nuclear weapons but often favored use of commercial nuclear power. After the Partial Test Ban Treaty in the early 1960's, which prohibited above-ground bomb tests, the Peace Movement had seemed to lose its constituency, as civil rights and other environmental issues absorbed the public's interest. Peace people's focus was on the physical devastation and "nuclear winter" that would follow nuclear war; the Cold War was hot; the Doomsday clock of the Bulletin of Atomic Scientists stood close to midnight. But the assurances of reactor safety lulled public concerns about the "positive" peaceful uses of the atom; the public was told that accidents would not happen -- well, serious accidents were "highly improbable events" and we needn't worry about "instantaneous core disassembly." Information about the adverse health effects of low-dose exposures to ionizing radiation was not generally available or was being actively suppressed by the Federal government. Our commonality of concern had not yet been melded, and, sadly, has not been fully joined even today.

To overcome these separations of people with common goals, ECNP initiated a loose coalition of grassroots groups with the awkward name of Eastern Federation of Nuclear Opponents and Safe Energy Proponents. It brought together nuclear power activists from most of the eastern states with those in the renewable energy community and some long-time peace activists. It was an amalgam of local grassroots citizen groups, professionals and academics, and direct action-oriented social radicals of the '70's. The Eastern Federation was formed at almost exactly the same time as the resurgence of the Peace Movement, formation of the nuclear weapons-oriented Mobilization for Survival, the rise of Direct Action, Civil Disobedience, and the Clamshell Alliance in New England. Approaches and tactics differed; but goals merged.

During the years of the Carter Administration, the breeder was dropped, "spent" fuel reprocessing was halted, and nuclear weapons proliferation began to be addressed. The power of the Congressional Joint Committee over nuclear energy was broken, and the AEC had been abolished. Nuclear safety issues long ignored by the AEC became public concerns; citizens intervened in NRC reactor licensing, forcing safety improvements. A Federal Interagency Group began serious study of radioactive waste management. Reactor economics turned sour, and new reactor projects began

to be cancelled. Under Carter, the new nuclear-dominated Department of Energy finally started to pay attention to solar, wind, biomass, other renewable energy technologies, and conservation and efficiency. ECNP's Director, representing the Eastern Federation, was elected to and then chaired the Board of the National Solar Lobby in the effort to unite health, safe energy, and environmental issues. ECNP members also took an active role in expanding the fusion of the issues of nuclear weapons and nuclear power.

ECNP Role in Formation of the Nuclear Information and Resource Service

In 1978, the ECNP Director was asked to develop a proposal for a national organization to collect and disseminate research findings, litigation documents, and other information that was being compiled, often repetitively, by small grassroots groups nationwide and to help to coordinate their safe energy, radiation protection, and nuclear waste efforts. The proposal for the Nuclear Information and Resource Service (NIRS) was designed to combine high-tech electronic diffusion of information with regional field personnel who would help to integrate the small disparate groups. Three models were used: Ralph Nader's national Critical Mass meetings that were initiated in 1974, the ECNP information and coordination approach during the Energy Park issue, and the Eastern Federation coalescence of concerns, with the added benefits of computer technology. NIRS is at present virtually the only national public-interest environmental group devoted almost entirely to the issues of nuclear energy.

Three Mile Island

Throughout much of the 1970's, Three Mile Island, Units 1 and 2, were a primary focus of ECNP activities. ECNP leaders, pro bono, represented residents of Harrisburg and surrounding counties before NRC's Atomic Safety and Licensing Board in operating license proceedings for both reactors. Lack of funding in the Unit 1 case led to an early settlement by the attorney, but without the organization's approval, of all issues that ECNP had sought to litigate. In the 1977 TMI-2 license proceedings, ECNP was prevented by the Licensing Board from cross-examining on issues and scenarios related to either the probability or consequences of accidents more severe than the safety systems were designed to withstand. Such accidents were arbitrarily ruled by the Board to be "highly improbable events," hence "beyond the scope of the proceeding."

ECNP appealed NRC's TMI-2 decision; at the D.C. Circuit Court of Appeals in 1978 we came within the vote of one judge of obtaining an injunction that could have prevented the reactor from going into operation --and might have prevented the billion dollar March 28, 1979, TMI-2 accident, the worst in U.S. commercial nuclear history. TMI was, is, the heartbreak of our lives. ECNP tried to bring together newly formed and reactivated citizens' groups throughout Pennsylvania. As a statewide coordinating organization, ECNP assisted in development of a litigation strategy to keep TMI Unit 1 closed during the TMI-2 cleanup; and prepared the joint proposal for the TMI Legal Fund and Information Center, but chose not to take full leadership among the newly formed nuclear opposition groups in the vicinity of TMI, who were encouraged to take

major responsibility for ongoing citizen vigilance and safety oversight.

Post-TMI accident, ECNP carried on half a dozen law suits: on unresolved issues from the TMI-2 operating license case; quantities and effects of radon gas released by uranium mining and milling associated with the operation of a reference reactor; maintenance of TMI-2 records; monitoring; probability and consequences of the crash into the reactors of an aircraft heavier than the TMI containment was designed to withstand; and many issues of TMI-1 Restart.

Other ECNP Licensing Interventions, Litigation, and Educational Programs

In the post-TMI period, ECNP intervened in NRC operating licenses for the rest of Pennsylvania's reactors (Susquehanna, Limerick, and Beaver Valley) with other locally affected groups who took the lead. Efforts to halt NRC licenses entirely was, of course, futile because the Atomic Energy Act mandates development of nuclear power "to the maximum extent." But we felt we must participate to the best of our scant resources and ability so that, if operated, a reactor would be as safe as it was possible for us to try to make it; uncertainties and shortcomings of technology, management, and regulation would be on the record.

The dilemma of contradictory goals has long plagued nuclear power critics. Without responsible public involvement, NRC would, under Atomic Energy Act dictates, defer even more to its clients, the regulated utility industry, thereby further lessening nuclear safety. By participating in NRC's biased licensing process, citizen intervenors did, and do, raise many major safety issues that had been ignored by the NRC and nuclear industry. Implementation of safety features that intervenors argued for in turn increased costs of nuclear power and encouraged its abandonment. However, this improved safety may have averted catastrophic accidents, thereby allowing growth of the role of nuclear power to a level such that now in the event of nuclear disaster Americans will be told, as were people of the former USSR, that environmental and health consequences of severe accidents are the price we must pay for unlimited electricity.

ECNP also joined national and other regional organizations in several generic rulemaking proceedings: Environmental Effects of the Uranium Fuel Cycle (Code of Federal Regulations, Title 10, Part 51.20, Table S-3, now Part 51.51); Availability of High-Level Waste Disposal and Spent Fuel Storage ("Waste Confidence"); and Utility Financial Qualifications. Each incremental input by public-interest intervenors that added to safety and health or environmental protection may have been counterbalanced by the regulators' acquiescence to the nuclear industry, but the costs of protection and safety continue to mount, making future commitment to the uses of nuclear power less and less attractive.

In rate cases before the Public Utility Commission, ECNP raised issues of environmental externalities, misleading least-cost analyses that fail to incorporate all costs, comparative economics of demand side management, conservation, efficiencies, and alternative renewables. At the local level, ECNP member groups pressed for

energy conserving measures, building and zoning codes, and other changes to promote the most efficient technologies.

ECNP Role in Nuclear Energy Regulation and Regulatory Processes

In these processes of legal intervention, regulatory participation, and public education, the opportunities increase to extend and unite the concerns of each segment of the populace affected by the total system of nuclear energy production and use, and waste management. This is the approach of ECNP in its continuing quest to bring about early retirement of the generators of nuclear risks for present and future populations and for the environment. It is not enough just to work for the passage of protective laws; the implementation of a law in regulatory agency decisions must also carry out the intent of the law.

Much ECNP work involves oversight of and involvement in regulatory procedures: attendance at and participation in State and Federal agency briefings, workshops, public meetings and hearings; statements, formal testimonies before Congress, State legislatures and local Municipalities; written and oral comment on nuclear energy regulations, amendments to licenses and technical specifications; and oversight of enforcement. ECNP attempts to follow and participate in proceedings of Federal agencies: NRC, EPA, and DOE (plus DOD, DOT, USDA, and FDA) responsible for various aspects of nuclear energy. Similarly, ECNP participates in State regulatory processes and activities. Years ago, ECNP was offered but rejected a seat on the State's Atomic Energy Advisory Committee. We have been represented on the Governor's Energy Council Advisory Committee, and on the Pennsylvania "Low-Level" Radioactive Waste Advisory Committee (LLRW) since its formation under the mandate of the LLRW Disposal Act 12 of 1988.

"Low-Level" Radioactive Waste (LLRW) Disposal in Pennsylvania

Shortly after Congress approved the Federal LLRW Policy Act in 1980, the first State Planning Council meeting was held in Washington to develop LLRW Compacts; ECNP was the only grassroots environmental group in attendance. In the fifteen years of LLRW controversies, ECNP has monitored and testified in development of Pennsylvania's nuclear laws, rejection of the Northeast Compact, Appalachian Compact formation, and formulation of LLRW regulations of DER. The efforts of DER (now DEP) and Chem Nuclear to site a regional LLRW disposal dump have revived the organization, with many recently aroused Pennsylvanians joining the weary stalwarts; they are breathing new and positive energy into ECNP.

Current ECNP Activities

As the long struggle to halt new reactor development wound down (for now), ECNP recently has focused mainly on issues of the non-cancer impacts of chronic

low-dose radiation exposures; ongoing reactor safety problems, the politically, societally, technically, and economically insoluble problems of radioactive waste isolation; and strategies to encourage nuclear utilities to take early retirement of their aging, infirm, costly, and very dangerous nuclear reactors.

Our real goal has always been and remains protection of health and genetic integrity of humans and other life forms from exposures to ionizing radiation in excess of those from naturally-occurring background sources. This requires prevention of accidents, cessation of the fuel cycle that creates those risks, and ending "routine" emissions and generation of ever more radioactive wastes. The first essential step to waste isolation is to stop producing more wastes.

Since too many decision-makers and those in "establishment science" who are strongly allied with the commercial and military nuclear industry still dismiss nuclear power opponents as "merely emotional," and since Federal and State regulation is not adequate to the need, the Environmental Coalition is building our arguments to the public on a sound combination of good science; human caring (which is based in emotion); ethical and moral concerns; and the irrefutable logic that, if matter cannot be created or destroyed, we'd better stop splitting the atom and producing ever more "environmental loading" of its unstable fission products into our earth's biosystem.

Working in concert with our counterparts nationwide and abroad, as well as with other active environmental groups in Pennsylvania, ECNP is supporting the orderly but rapid closure and clean-up of all nuclear fuel cycle facilities used for commercial and military purposes. We support sequestration of all radioactive wastes, but are not advocating any of the available methods of radioactive waste disposal. If we're unwilling to accept the risks in our own back yards, in good conscience we can't recommend dumping waste on other people or places. We seek, instead, development of a system of radioactive materials and waste management that is directed toward prevention of all radiation exposures that are additive to naturally-occurring background levels for both present and future populations; and that will give equal opportunity to future peoples to continue to maintain control over these wastes for the full duration of their biologically hazardous existence.

In addition to developing more effective electronic information dissemination, ECNP members have been instrumental in providing reliable information on LLRW and low-dose radiation health effects; fostering local interest in Agricultural Security designations of rural land; and urging adoption of protective county and township ordinances, in the event a community is chosen by Chem Nuclear to "host" LLRW "disposal." Most recently, ECNP members have been monitoring Chem Nuclear and DEP presentations promotional of LLRW siting, and are providing information to citizens and local government officials about the nuclear industry's efforts to obtain a LLRW "volunteer community partnership."

In April 1995, ECNP, with Sierra Club Pennsylvania Chapter, Pennsylvania Environmental Network, RESCUE, STORM, Ecology Action, and others, sponsored a major statewide conference on "spent" fuel high-level waste transportation; with an

agenda of superb speakers, it attracted an audience from seven other states and Canada. Video tapes are available for similar mini-conferences.

At the request of a sibling organization, the Prairie Island Coalition in Minnesota, ECNP is assisting them in culling, from discovery documents in the litigation Northern States Power v. Westinghouse, and making public, for the first time, important information concerning the problems with and defects of reactor steam generator systems. Massive amounts of documentation (hundreds of thousands of pages) await our citizen volunteers at the Westinghouse Science and Technology Center in the Pittsburgh area. We're seeking people with some time to devote in the months ahead to this worthwhile intellectual challenge.

In November 1995, in a petition with Sierra Club, NIRS, and two pro se petitioners to the U.S. Circuit Court of Appeals for the District of Columbia, ECNP is challenging EPA's Final Decision to rescind its radiation standard promulgated under the Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAPs). In a long, intricate rulemaking, the EPA had set a 10 millirem per year maximum individual public exposure limit from nuclear power reactors, then stayed its effectiveness, and now rescinds the standard, relinquishing its mandatory duty to set radiation protection standards to NRC, on the grounds that the NRC's standards and regulatory program provide for "acceptable risk" and an "ample margin of safety."

This, despite the facts: NRC allows 100 mrem/yr total effective dose equivalent to individuals, or up to 500 mrem/yr upon licensee request for a waiver; "ample margin of safety" is based on NRC's use of ALARA which is a discretionary, rather than mandatory, calculated dose limit, and is based on the costs of pollution control to reduce collective exposures; the NRC regulatory program allows licensee self-monitoring and self-reporting; and NRC does not measure real doses to real people. This rule sets a precedent for EPA next to abdicate its responsibility for all non-reactor NRC and Agreement States licensees.

Since 1988, ECNP has commented and testified several times in earlier phases of this Byzantine rulemaking. EPA's standards are up to fifty times more protective than those of NRC; we cannot let stand the conclusion that NRC regulation is sufficient to protect public health and safety or the environment. ECNP seldom asks for help, but in this case, contributions to aid our pro bono counsel with costs of copying, printing, mailing, and some travel would be most pleasing.

These are only some of ECNP's current activities. Although nuclear power is patently failing, and in a rational world would never have been developed, constant vigilance by citizen activists like all of you will continue to be essential far into the future. But by far the greatest benefit from the existence of this Coalition has been the opportunity to develop deep, lasting friendships, and the privilege of meeting and working with its members, friends and colleagues -- surely high among the world's finest people.

Mission Statement of the Environmental Coalition on Nuclear Power

The Environmental Coalition on Nuclear Power recognizes that all exposures to ionizing radiation carry risks of somatic and genetic damage to recipients. Accumulation in the environment of radiation generated by human activities adds to naturally-occurring background radiation levels and thereby increases the probability of biologic injury to recipients who may be far removed in time and distance from the source. The exposures are imposed, not chosen; those who impose them are not held accountable for any damage they may cause to others.

The basic ECNP position is that human beings and all the other forms of life that share our ecosphere must be protected from the exposures to man-made, or technologically-generated, radiation that are additive to doses received from naturally-occurring background sources. Our goal always is to minimize radiation-related biological injury from radiation exposures. Because of the nature of these biologic effects and radioactive accumulations over time in the biosystem, all radioactive materials and wastes must be sequestered from the biosphere during the full hazardous life of the materials and wastes. ECNP strives to avoid radioactive "environmental loading." Isolation is essential.

Therefore, ECNP supports cessation, and replacement, of the domestic commercial activities that generate nuclear wastes and create risks from catastrophic nuclear accidents and "routine" permitted radioactive emissions and effluents. ECNP supports dismantling of nuclear weapons and the safest achievable management of their wastes, without recycling, resource recovery, or other activities that add to releases and environmental loading. ECNP supports an end to nuclear weapons production. Let us resolve conflicts in civility.

To provide society's electrical and other energy needs, but not for wasteful demands or uses, ECNP advocates adoption at all levels, from individuals to municipal, state, federal and international governments, of safe, sustainable policies for population, resources and energy based on maximization of conservation, energy efficiency, and reliance on renewable energy sources. ECNP advocates adoption by us all of an environmental and ecological ethic that accepts our species' responsibility to bequeath a healthful, livable planet earth to those who will follow us.

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