## THE RADIOACTIVIST

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### SACRIFICE COMMUNITIES

THE QUESTION OF HOW REACTORS OPERATE AND CORPORATIONS DISPOSE OF WASTE IS CENTRAL TO THE ISSUES OF DEMOCRACY, POLLUTION PREVENTION AND REDUCTION, AND SITE REMEDIATION. It involves ethical issues concerning nuclear power. CAN addresses these issues from the position of a contaminated community. We are a regional group speaking for citizens in the effluent pathways of reactors and waste sites.

In the Deerfield River Valley in western Massachusetts, we lost our river to the Yankee Atomic Corporation. We are now fighting to regain control. This rural community hosts two nuclear power stations seventeen miles apart. Franklin is a poor New England county. Our fight is informed by the perspective of sacrificed communities and by our history of denial, intimidation, ignorance, and fear over a thirty year period. Our sacrifice is evidenced by an epidemic of disease, which includes elevated rates of cancers, mortality, and Down syndrome.

COMMUNITIES CHOSEN TO SUFFER NUCLEAR CONTAMINATION ARE OFTEN POOR, RURAL PEOPLE OF COLOR, AND NATIVE AMERICAN- COMMUNITIES HARD PRESSED TO CHOOSE HEALTH AND SAFETY OVER SHORT-TERM FINANCIAL RELIEF. It is unacceptable to force people to choose between immediate economic survival and the sacrifice of future generations.

#### **ENVIRONMENTAL RACISM**

NUCLEAR POWER IS A DIRTY TECHNOLOGY AND CONTAMINATES EVERYTHING IT CONTACTS. Before a reactor goes on line, it creates waste from the mining and milling of uranium. When operational, waste is either stored on site for shipment to contaminate another community or released to the adjacent environment. No amount of radiation exposure is safe. The dangers of exposure to radiation have been largely ignored. The public's anxiety concerning nuclear power is directed toward the accident and whether safeguards are effective.

ASSAULT ON SURROUNDING COMMUNITIES since the community, becomes a radioactive waste dump through routine and regular effluent releases. For a PWR like Rowe there were on average 5 batch releases a month into the Deerfield River. For a BWR like VT Yankee there is a continuous release of radioactive effluent into their community's atmosphere.

#### YANKEE ROWE: THE EXPERIMENT

Yankee Rowe, the first commercial nuclear power station in the country, was an experiment. It operated for thirty-one years until local citizen pressure over the embrittlement of its reactor vessel shut the reactor down. The closure of the reactor was only the beginning of the work that was needed in our community.

RESEARCHING THE RECORDS OF THE REACTOR, WE LEARNED THAT IT ROUTINELY AND REGULARLY RELEASED RADIOACTIVE WASTE INTO THE DEERFIELD RIVER. Citizens were shocked. Our community uses our river for recreation. Over 500,000 people a year use the river. Since the NRC classified our river a "dead river", it was not required to the meet the EPA standards for drinking water.

YANKEE ATOMIC WAS ONE OF THE BEST-RUN REACTORS IN THE COUNTRY AND NOW OUR COMMUNITY IS SUFFERING. Our community was exposed for thirty-one years. Our children swam in that river; agricultural land, as well as three schools, are adjacent to it. In drought, farmers pumped water from the river to irrigate crops. Air inversions blanket the river valley over 34% of the time, trapping air-borne contamination in our valley. Spit and spume from the rapids are dispersed into the adjacent community.

CAN compiled the history of radiation releases into the Deerfield. **DUE TO FAULTY FUEL RODS, LARGE QUANTITIES OF TRITIUM WERE RELEASED INTO OUR SMALL RIVER.** In the 1960's-1970 's 20,000 curies of tritium were released. All releases were within Nuclear Regulatory Commission acceptable limits.

#### **Tritium**

THE STANDARD "SAFE" OPERATION OF A NUCLEAR POWER STATION IS A CONTINUOS UNRELENTING

TRITIUM IS A RADIONUCLIDE ROUTINELY RELEASED FROM REACTORS. Believed to be a relatively benign radionuclide with a half-life of 12 1/2 years, recent research reclassified tritium as A DANGEROUS ENVIRO-TOXIN - 2 TIMES AS CARCINOGENIC, 2-5 TIMES AS MUTAGENIC, AND 2 TIMES AS TERATOGENIC as originally believed. It is associated with Down syndrome, birth defects and spontaneous abortion in research and linked to breast and intestinal cancers. Tritiated water passes through the body in 12 days but when the tritium unites with carbon, it can remain in the body for 450 to 650 days.

CAN worked with the MA Department of Public Health (DPH) for <u>8 years</u> in a "preliminary investigation". We assembled a pro-bono team (epidemiologist, meteorologists, and geologists) to understand the contamination pathway.

The MDPH presented information that showed STATISTICAL SIGNIFICANCE IN BREAST CANCER, NON HODGKIN'S LYMPHOMA, AND DOWN SYNDROME. In addition cases of multiple myeloma were found throughout the valley. This is a rare cancer (only 12,700 are diagnosed each year) and the only known risk factor is ionizing radiation. The results of the analysis validate citizen concern that an epidemic of disease in fact exists in the Deerfield River Valley as evidenced by elevated incidence of diseases in multiple categories. The Valley is a small rural community in which statistical significance, if found, presents a serious concern.

THERE WERE ELEVATIONS IN MANY OTHER CANCERS AS WELL IN VALLEY TOWNS. These included pancreatic cancer, breast cancer, lung cancer, and several types of cancer were elevated in Rowe. Our epidemiological consultant found elevations in brain tumors and prostate cancer. In addition, he found a 110% increase in infectious disease and 40% increase in heart disease leading to mortality. We have at least a ten-fold increase in children with Downs Syndrome and many children with multiple birth defects.

This epidemic is related to the synergistic effects of long term exposure to low-level radiation from the two nuclear power stations, dioxin generating paper mills, and heavy metals released from hydropower production in our neighborhood.

# EPIDEMIOLOGICAL STUDIES: No More Insignificant Statistics

The standard epidemiological model is ineffective. It confuses objectivity with indifference by disqualifying those who are concerned as unable to be "objective". Concern cannot disqualify communities who seek the truth. The denial by scientists of the contamination pathway and the

refusal to value community participation renders the results inconclusive and distorted. If the studies undertaken are not a partnership between scientists and the community, our humanity is lost in insignificant, irrelevant statistics.

The requirement for "statistical significance" is crude and irrelevant in understanding disease in small, impacted communities. While approaching epidemic proportions, the suffering of the community can appear statistically invisible. Citizens exposed to environmental toxins are "selected" by the dispersal pattern of the contamination. This pattern is determined by local meteorological and geographical conditions and requires examination. The present scientific model can not end our suffering or clarify the level of damage to our community. It won't heal our community.

#### **GREEN POLICY FOR WASTE**

There is no pro- or anti-nuclear. There is waste with no solution. It is America's problem, not just the nuclear industry's. A Green policy on radioactive waste must develop to protect the environment.

- STOP THE CREATION OF RAD WASTE.
- CITIZENS MUST PARTICIPATE IN THE PROBLEM-SOLVING PROCESS TO CREATE POLLUTION PREVENTION, SOURCE REDUCTION, AND WASTE STORAGE TECHNIQUES.
- ACKNOWLEDGE THE TRUTH- the environmental racism inherent in the nuclear fuel cycle;
- CLASSIFY NUCLEAR SITES AS SUPERFUND SITES;
- PROVIDE FUNDING to communities for education, medical training, monitoring, and other protective services

IF WE CAN UNDERSTAND THAT THE WORLD IS OUR NEIGHBOR, THEN WE CAN END THE CYCLE OF CONTAMINATION AND SACRIFICE.

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