Comments on the Desirability of Nuclear Power as a Component of our Energy Policy

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We are engaged in putting together the story of how a coalition of fairly ordinary people, for the most part without impressive credentials or connections in high places in finance or government, were able to mount and effort that ultimately resulted in closing down a nuclear power plant. The story leads through doubts, dilemmas and despairs, fears and fantasies toward the building of a solid base of information and a powerful citizens' referendum, which led to a series of investigations by the Nuclear Power Regulatory Agency. The Maine Yankee nuclear power plant went overnight from being rated as one of the best-run plants in the country to one of the worst. The safety violations that were cited proved too costly to remediate. It was impossible to raise the necessary capital, and in 1996 the plant was closed down after 24 years of operation, and many years short of its expected lifetime.

The next phase of the drama concerns the standards governing the shut down and cleanup operation, which left the town of Wiscasset with 900 tons of radioactive waste stored on site in concrete casks with a design lifetime of 50 years. We are now 14 years into that lifespan, with no plan in sight for what happens next. The residual radioactive pollution in the soils and on the bottom of the bay will be with us for a good deal longer than that. Now that nuclear power is included as a component of our energy future as a "clean and green" source of electricity, we feel compelled to share our story and what we have learned.

What we want to introduce into the conversation is a discussion of the routine radioactive releases into local soils, waters and air from the routine operation of a nuclear power plant, the ways in which these materials can bioconcentrate, the pathways by which they can enter the human body, and the probable detriments to the health of the surrounding populations from these routine releases.

Ac cording to the BEIR (Biological Effects of Ionizing Radiation) reports that have been released by the National Academy of Sciences, "there is no

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safe level or threshold of ionizing radiation". Even the lowest doses (meaning nearly zero) can cause cancer. Worse yet, mortality from radiation-induced cancer is 50% higher for women and 3-4 times higher for female babies and children.

A study done with Center For Disease Control (CDC) statistics by the Seacoast Anti-pollution League showed that, within 30 miles of Seabrook from 1991 to 2002, the childhood cancer rate for children under 15 rose by about 19% after Seabrook began operating, while for the same period cancer rates significantly declined regionally and nationally.

A larger study done (also with CDC data) by the Radiation and Human Health Project on cancer incidence near US nuclear power plans showed the same results. (cf: Archives of the Journal of Environmental Health, 2003) . Conversely, reactor closings across the US have been followed by sharp decreases in infant death and childhood cancer rates.

A study done by epidemiologist Dr. Theodore Hauschka, Dr. Peter C. Hauschka and Maria Holt and presented at the 7th Annual meeting of the American Association of Cancer Research in Atlanta on May 20th, 1987, showed significant increases in radiogenic leukemia in the seven counties surrounding Maine Yankee after the plant came on line in 1972.

A case-controlled study of childhood malignancies (acronym KiKK) done in Germany in the areas around all German nuclear plants showed with high statistical power a strongly increasing risk for childhood malignancies with residential proximity to any of the 16 German nuclear plants, The steepest rise in risk occurs within 5 kilometers, but significantly elevated risk extends to 50 kilometers. Tests for possible cofounders found none, nor is chance a plausible explanation.

There is a huge and confusing body of scientific literature on this subject, and it seems to be possible to find one or more reputable studies to support every possible opinion. Those responsible evaluating a policy of re-introducing nuclear power as a component of energy policy need to be aware of this controversy and respectful of these voices that warn of danger.