



## **On life near two nuclear power plants in Illinois: an interview with Cindy and Joe Sauer**

*This interview was originally published in [Science for Democratic Action, Vol. 17 No. 1](#). The interview responses are reprinted and the full presentation is provided here with permission from Cindy and Joe Sauer.*

- [Download Joe Sauer's presentation](#) (PDF)
- [Purchase a copy of "What Do You See When You Look At Me?"](#), written and photographed by Sarah E. Sauer.

*Introduction:* There are two reactors each at the Braidwood and Dresden nuclear power plants in Illinois. Braidwood has two Westinghouse pressurized water reactors that were commissioned in 1988 with a total combined power rating of 2,330 megawatts. Dresden has three General Electric boiling water reactors of a design similar to the stricken reactors at Fukushima Daiichi in Japan. Unit one was a small unit of 210 megawatts commissioned in 1960. It was shut in 1978 and decommissioned. Units 2 and 3 are rated at 867 megawatts each and are still operational; they were commissioned in 1970 and 1971 respectively. They have had their licenses extended for 20 years beyond the initial 40 years. The current schedule for closure is December 2029 for Unit 2 and January 2031 for Unit 3. The Braidwood and Dresden nuclear power plants have leaked [tritium](#) in the form of radioactive water to the environment. Cindy and Joe Sauer lived in the area of these reactors from 1998-2004. Subsequently to their finding of [tritium](#) leaks and contamination and that many children in the area had cancer, brain cancer, leukemia, they moved away from the area. Their daughter Sarah was diagnosed with brain cancer when she was seven. A statement from her is at the end of this interview.

*Arjun Makhijani: Tell me how you got so deeply involved in studying cancers near the Braidwood and Dresden nuclear power plants in Illinois.*

Cindy and Joe Sauer: We became concerned after learning that there had been leaks at the plants and an out of court settlement made by the Illinois Attorney General's office with the nuclear power plants for violations of the safe drinking water act.

*Arjun: What did you do to try to inform yourself about these nuclear power plants when you first found out about the leaks?*

Cindy and Joe: We began contacting various government agencies at the local, state and federal level. Agencies such as NRC [Nuclear Regulatory Commission], EPA [Environmental Protection Agency] and health department.

*Arjun: What did Sarah's doctor say was the likely cause of her cancer?*

Cindy and Joe: We were told her cancer was most likely environmentally induced. One mother told me that her physician referred to the area as the Nuclear Bermuda Triangle.

*Arjun: Cindy, tell me how you first came across the concept of Reference Man and what you did when*



*you learned how it was applied in regulation.*

Cindy and Joe: I came across “Reference Man” in a discussion with the NRC when I questioned them about the information I learned regarding the out of court settlement and how Exelon had to reimburse the DNR for the dead wildlife that perished as a result of ingesting the contaminated release from their plant. I wanted to know what was the impact on humans considering what happened to the wildlife. It was then that I learned of Reference Man and was told very specifically that they are permissible levels and the NRC never said safe levels. I asked them if these levels were “permissible” for a 7 year-old, 40 lb little girls; I have yet to receive an answer.

*Arjun: I understand that you had considerable difficulty getting the cancer data from the State of Illinois. Can you describe some of the difficulties?*

Cindy and Joe: IDPH [Illinois Department of Public Health] has a cancer data set which is available to the public. It is grouped in five year intervals and the cancers are categorized into 4 age groups and 10 cancer types. The grouping of the cancer cases in these categories limits the ability to analyze the impact of the leaks on the cancer incidence. For example, thyroid cancer is lumped into the “other” category. We, therefore, asked for access to the original data set. We were told that would be a HIPAA [Health Insurance Portability and Accountability Act] violation as it would allow identification of the individual cases. This was despite the fact that we told them they could remove any personal identifying data and that I would sign a HIPAA agreement. IDPH even refused to release the data when requested by then-Senator Obama’s office.

*Arjun: So what did you find when you did get the data?*

Cindy and Joe: I looked at the cancer incidence around the Braidwood and Dresden Nuclear Power Plants for the 10 years before the leaks began and the ten years after. After adjusting for age, the overall cancer incidence increased 9% for the state of IL and about 18% for the area near the plants. Similarly, the rate of leukemia increased twice as fast near the plants as it did in IL as a whole. Neurologic/brain cancers actually decreased in the state of IL while the rate around the plants increased 30%. For the ten years after the leaks began, a person living near the power plants was 10% more likely to develop cancer than someone living elsewhere in IL. They were 18% more likely to develop leukemia and 23% more likely to develop a neurologic or brain cancer.

*Arjun: So what were your main conclusions about childhood cancers near Braidwood and Dresden compared to the rest of Illinois?*

Cindy and Joe: The pediatric cancer incidence near the Braidwood and Dresden plants increased 55% in the ten-year period since the leaks began. The overall incidence in the state of IL remained stable.

*Arjun: You also took a look at the Zion nuclear power plant, which has two pressurized water reactors of 1,040 megawatts each, commissioned in 1973, but which permanently closed in 1998.*

Cindy and Joe: The incidence of pediatric cancer near the Zion Nuclear Power Plant peaked in 1996, the last year it was in operation. The rates steadily decreased from that time on until by 2005 the levels were similar to the rest of the state. Again, comparing the ten years before ceasing production to the ten years



after showed a 9.7% decrease in pediatric cancer around the Zion Plant.

*Arjun: So what did you do with your findings?*

Cindy and Joe: We, initially, contacted IDPH to allow them to confirm or refute the findings. The first response was that the data was statistically insignificant. When we pressed the department for a statement saying whether the findings indicated a problem around the nuclear power plants, we were re-directed to the legal department. We attempted to get an open meeting with the epidemiologists from IDPH to discuss the findings. Their legal counsel would not allow a meeting in which the public was in attendance. We never did get a response as to their position on the data.

Next, we presented the data to the NRC. We were informed that the NRC did not study the health impact on humans. They relied solely on the state department of public health to monitor for any health effects.

We then learned that the NRC was commissioning a study to look at the health data around the nuclear power plants. It was to be performed by ORISE [Oak Ridge Institute for Science and Education]. It was going to be similar to the previous NIH [National Institute of Health] study. We discussed the problems with credibility of such a pro-nuclear institute with Chairman Jaczko. He then halted that study and opened the study up for bid and selected the NAS [National Academies of Sciences] as the most reputable independent agency to conduct the study. We were able to present the data to the full NAS Phase 1 panel. [Phase 1 of the study was to examine the feasibility of epidemiologic studies and to make recommendations about whether and how they should be done.] The data was very well received and the general consensus was that the Phase 2 study needed to focus on the children living near the plants with less than stellar safety records.

*Arjun: Do you support the Phase 2 study one part of which is going to look at cancer risks for everyone around six nuclear facilities and also another that will look only at children? What do you hope will be the outcome of Phase 2 of the NAS study?*

Cindy and Joe: Yes, we clearly support this study and see it as the beginning of an ongoing process that will continue to monitor the health of individuals who live in the vicinity of nuclear plants. The goal is to provide better protective layers between the public and these plants.

*Arjun: It must be very difficult to discuss all these personal difficulties that Sarah and the whole family has faced publicly. What is your main goal in going through all that?*

Cindy and Joe: To provide better and more protective layers between the innocent members, particularly the most vulnerable members of the public, babies, children, women, pregnant women and these plants. To make sure that the regulations and “permissible” levels are based on independent and peer-reviewed science and truly protecting the health of people, especially the most vulnerable members of the public.

*Arjun: If you are comfortable doing it, please tell us how Sarah has coped with her many challenges and what she is doing today.*

Cindy and Joe: Sarah faces uphill battles every day. We try to assist her and provide her with as many opportunities to succeed and feel as though she is a contributing member of society. We have connected



her with many wonderful individuals who have allowed her to volunteer and work under the guidance of very caring individuals. She has always loved animals and wanted to be a vet but that is not an option. She wanted to also work as a zoo keeper but does not have the physical abilities to do so. We have encouraged her to take her love for animals and combine it with her love for working with preschool children. Sarah has an interest in photography and has recently put together a children's book with photographs of various animals and encourages children to see the beauty and detail of each animal in her book titled, What Do You See When You Look at Me?

*Arjun: If Sarah wants to say something here, she would be most welcome of course.*



Sarah: When I was seven years old I was diagnosed with brain cancer. The surgery, chemo and radiation treatment were horrible. I lived in Illinois in the vicinity of the Dresden and Braidwood nuclear power plants. I along with other children became sick with cancer. My parents moved me away from the area after many people including officials in Washington DC told my parents it was not safe to live there. My parents and I have been to Washington DC to speak to various government officials and fight for the right for kids to live in a healthy environment and not to have to be exposed to low levels of radiation on a daily basis. I spoke to the National Academy of Sciences twice to remind them of who they are doing the health study for and that me and all the other kids who live(d) near nuclear power plants and got cancer are not just a statistic. Cancer may have taken many things from me but it did not take away my love for life. All of life is very precious and we need to make sure that everyone, especially the children have a safe and healthy world to grow up in.

***IEER would like to offer Sarah's book for \$20, including shipping. It will be signed by her. The family will generously donate half the funds to IEER. Order a copy of the book by [contacting IEER](#) or online via PayPal: Quantity***