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Nuclear Power and Lay Perception: One Community's Fight for Answers

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Executive Summary

As evidenced by the successful coalition of citizen involvement at Love Canal, NY, Woburn, MA and Times Beach, MO, lay perception is gradually being recognized as a legitimate force in discoveries of human-produced toxic contamination. For the purposes of studying the process by which lay perception of toxic contamination translates into community action, lay perceptions of cancer risk and causation are examined using survey data and interviews that were carried out within a community located about 60 miles southwest of Chicago, IL. There, citizens have been at the forefront of a battle to address radioactive water leaks that have occurred over the past decade at the Braidwood Generating Station and at the Dresden Generating Station. Because communication is an important part of addressing human-produced toxic contamination, interactions between laypeople, government, and businesses are also examined. This process by which “members who are not scientists investigate disease patterns and causes and struggle with government agencies and professionals to ameliorate the situation” has been officially termed “popular epidemiology” by Brown and Mikkelsen (1990:2). The results of the interviews and survey suggest that a more serious consideration of lay perception is essential to properly identifying and addressing human-produced instances of toxic contamination. For example, lay observations of increased cancer rates, birth defects, and a diesel fuel leak within the area preceded the disclosure of the radioactive leaks. Efforts on the part of community members to address the contamination have so far been largely ignored, also suggesting that businesses and government are not doing their part to promote the health and well-being of socially and economically disadvantaged communities. It is apparent that greater, informed citizen involvement and a shift in scientific and lay understanding are necessary if productive changes are to occur.