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February 27, 2003

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Ms. Billie Blanchard (VIA FAX - 240-1720 - and Regular Mail) 13 pages
California Public Utilities Commission
c/o Aspen Environmental Group
235 Montgomery Street, Ste. 800
San Francisco, CA 94104-2906

Re: PG&E Jefferson-Martin 230kV Transmission Project

Dear Ms. Blanchard:

We are homeowners in the San Mateo Highlands. We live one house from Lexington Avenue, behind which is the proposed PG&E Transmission Project. We also own two rental properties in the Highlands.

We are very concerned about the potential health effects of such a huge increase in voltage (from 60kV to 230kV). We are enclosing a portion of the book "The Great Power-Line Cover-Up", written by Paul Brodeur, a writer at the New Yorker for 35 years, and the person who alerted the nation in 1968 to the dangers of asbestos.

We hope you will take the time to read it, as it provides a look at another countries' (Sweden) study into the effects of EMFs. Sweden accomplished the study without the obstacle of government and powerful utility companies battling its efforts, and concluded that there definitely IS a connection between EMF exposure and various cancers.

In the U.S., it is sadly the case that the utility companies and the government have every reason to continue telling the public that "there is no proven correlation" between EMFs and cancer. It is just a matter of time before the truth comes out, and at that point we will see PG&E and all other utility companies scurrying around to mitigate the adverse effects of their high voltage lines.

It would be far more prudent to take those steps TODAY. IF there is a proven need, and if there is no better alternative to provide more power and more reliability, then at least spend the money necessary to PROPERLY bury the lines as far from residences and schools as possible. We have read that encasement in oil-filled steel pipes will greatly mitigate the EMFs, but have heard that there is a newer method that is more environmentally sound. Surely, PG&E knows what that method is.

Obviously, our primary concern is health. Secondarily are aesthetics and property values. Please take our concerns into consideration as you move forward in this process.

Thank you.

Very truly yours,

Judy C. Kwee

Anthony B. Kwee

Praise for The Great Power-Line Cover-Up

"This book should be required reading for every parent in America, especially those with children in grade school. Paul Brodeur is as good a journalist as they come."

—Seymour Hersh

"The big yellow light has come on regarding cancer risks, especially for children, from nearby power-line electromagnetic fields. Paul Brodeur once again has brought together the mounting evidence that cries out for more attention and more action on EMF in our industrialized society."

—Ralph Nader

"As with lead in gas and CFCs in air conditioners, so perhaps with electromagnetic fields. Paul Brodeur, through sheer dogged reporting, seems to have added another item to the list of conveniences that are costing us dearly. His evidence is compelling enough that industry and government may finally be forced to respond with more than evasion and bland reassurance."

—Bill McKibben

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THE GREAT POWER-LINE COVER-UP

BRODEUR

Little, Brown

THE GREAT POWER-LINE COVER-UP

How the Utilities and the Government Are Trying to Hide the Cancer Hazards Posed by Electromagnetic Fields

PAUL BRODEUR

Author of Currents of Death and Outrageous Misconduct

published in 1993

CURRENT AFFAIRS/SCIENCE

[redacted] FPT
in Canada

First he exposed the asbestos industry. Now Paul Brodeur reveals the dangers of high-voltage and high-current power lines and industry's attempts to cover them up.

Seven adults and children living on Meadow Street, in Guilford, Connecticut—a street 250 yards long with only nine houses on it—have been struck by cancer during the past few years. Three thousand miles away, children attending the Montecito Union School, in Montecito, California, have developed leukemia and lymphoma at more than fifteen times the expected rate. Fifteen teachers and staff members at the Slater Elementary School, in Fresno, California, have developed cancer in recent years. The common factor for all three groups: close proximity to high-current or high-voltage power lines giving off strong magnetic fields.

Tough, hard-hitting, and highly controversial, Paul Brodeur's new book vividly documents tragedies like these all across the nation—and exposes the massive cover-up undertaken by the electric utilities and their government allies. Brodeur focuses on a wide variety of cases—particularly those in which children are at risk—and shows how local, state, and federal officials have unscrupulously ignored the data, downplaying disease among schoolchildren, stifling scientific investigations, and hobbling the E.P.A. He concludes with incisive policy recommendations on ways to resolve the power-line health crisis.

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A writer at *The New Yorker* for the past thirty-five years, Paul Brodeur alerted the nation in 1968 to the enormous health hazards posed by asbestos and has written four books on the subject. He has won the National Magazine Award; a Sidney Hillman Foundation Award; and an American Association for the Advancement of Science Award. The United Nations Environment Program has named him to its Global 500 Roll of Honour for outstanding environmental achievements as a result of his work in warning of the depletion of the ozone layer by man-made chemicals. He lives in Massachusetts and California.

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Jacket photograph by TSW © Brian Seed
Author photograph by Bronia Sullivan

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Michak also learned from an official of the Department of Health Services that the department had been aware from the time of the first meeting of the ad hoc committee of the potential conflicts of interest that were implicit in the activities of Stolwijk and the financing of Bracken, but had decided not to make the information public.

CHAPTER NINETEEN

Some Incontrovertible Evidence

UNFORTUNATELY, attitudes and conduct similar to those exhibited by the health officials of Connecticut and California have been the rule rather than the exception in almost every state in which the power-line issue has been raised in recent years. As a result, citizens from one end of the nation to the other have had to fend for themselves in calling for preventive measures to deal with the hazard, and to do so in the face of heavily financed public-relations campaigns mounted by the utilities to convince the public that there was no cause for worry about power-line emissions and, therefore, no need for any preventive measures. All the huffing and puffing by the utilities was designed to obscure the fact that never in history had as much evidence of the carcinogenicity of any agent as had by then accumulated about the cancer-producing potential of power-line magnetic fields been subsequently demonstrated to be invalid and the agent in question found to be benign. Nor was a precedent about to be set. On September 30th of 1992, the wind went out of the utility industry when officials of Sweden's National Board for Industrial and

Technical Development formally announced that they intended henceforth to "act on the assumption that there is a connection between exposure to power frequency magnetic fields and cancer, in particular childhood cancer."

The stunning new Swedish policy was prompted by the results of two major epidemiological studies — one residential and the other occupational — which clearly demonstrated that exposure to electromagnetic fields at home and at work was linked to the development of leukemia. Both investigations had been started in 1987, when health authorities in Sweden, unlike most of their counterparts in the United States, had taken serious note of studies confirming previous findings of excess leukemia and other cancer in children and adults exposed to electromagnetic fields. The residential study was conducted by Anders Ahlbom, a professor of epidemiology at the Institute of Environmental Medicine of the world-renowned Karolinska Institute, in Stockholm, and Maria Feychting, who is a doctoral candidate and research assistant there. With the aid of fellow scientists, Ahlbom and Feychting designed a case-control study to investigate the incidence of cancer among a population of 436,503 people who had lived for at least one year between the beginning of 1960 and the end of 1985 in dwellings that were situated within just under a thousand feet of virtually all of Sweden's ninety-three hundred miles of two-hundred-and-twenty-thousand- or four-hundred-thousand-volt transmission lines. Cancer of all types was studied in children, for whom the one-year residency limit was not applied, while for adults the investigation was limited to leukemia and brain tumors. The cancer cases were identified from records maintained by the Swedish Cancer Registry, and the controls — four for each case of childhood cancer and two for each case of adult

cancer — were children and adults without cancer, who were selected at random from the total population living in the designated corridor, and matched to the appropriate cancer cases according to time of diagnosis, age, sex, parish, and power line.

Ahlbom and Feychting assessed the long-term exposure of people living near high-voltage transmission lines by taking spot measurements of field strength in the homes of each case and control, and using them to confirm the accuracy of a computer model that calculated the strength of the fields emitted by each of the lines, according to distance from the line, the wiring configuration of the line, and the current load the line was known to be carrying. They then programmed the computer with records of past current loads that had been maintained for each of the transmission lines by station managers of Vattenfall, a state-owned utility company formerly known as the Swedish State Power Board. The historical load records, which encompassed the entire twenty-six-year period of the study, enabled them to estimate with great accuracy the average annual magnetic-field exposure for each cancer case and its corresponding controls at the time of diagnosis, as well as at intervals of one, five, and ten years before diagnosis.

Upon evaluating their data, Ahlbom and Feychting observed a clear dose–response relationship between increasing magnetic-field exposure and the occurrence of childhood leukemia: children living in dwellings in which they had been exposed to average power-line fields of more than one milligauss experienced twice the risk of developing leukemia as children living in homes in which they had been exposed to fields of less than one milligauss; children exposed to more than two milligauss had almost three times the risk; and children exposed to more than

three milligauss had nearly four times the risk. The two scientists found that adults exposed to fields of more than two milligauss experienced a seventy per cent increased risk of developing both acute myeloid leukemia and chronic myeloid leukemia, when compared with adults exposed to less than one milligauss, but this excess was not considered to be statistically significant. Surprisingly, they observed no association in either children or adults between exposure to magnetic fields and the occurrence of brain tumors.

The occupational study, which also employed cases and controls, was conducted by an epidemiologist named Birgitta Floderus and some co-workers in the Department of Neuromedicine at the National Institute of Occupational Health, in Solna, a suburb of Stockholm. It included two hundred and fifty men who had been diagnosed with leukemia; two hundred and sixty-one men diagnosed with brain tumors; and a control group of eleven hundred and twenty-one healthy workers. Workers with exposure to benzene and ionizing radiation — known leukemia-producing agents — were excluded from the study. Floderus and her colleagues assessed the magnetic-field exposure of their subjects by taking more than a thousand prolonged measurements (the mean duration of each was 6.8 hours) in a hundred and sixty-nine job categories. When they analyzed their data, they found that men whose jobs had exposed them to electromagnetic fields that averaged 2.9 milligauss or more developed chronic lymphocytic leukemia three times as often as workers who had been exposed to fields that averaged less than 1.6 milligauss, and that workers whose average exposure was more than 4.1 milligauss experienced an increased risk some four times that of the less-exposed workers. They also found that workers with high magnetic-field exposure developed brain tumors more frequently than workers in the less-exposed group, but this association was not as strong as the association for leukemia.

The fact that both of the Swedish studies demonstrated a clear dose–response relationship between exposure to weak power-frequency magnetic fields and the development of cancer all but demolished the contention of the electric-utility industry in the United States that the excess risk found in previous studies might have been caused by exposure to pesticides, chemicals, or other toxic agents. The fact that both studies showed average magnetic-field exposure over time to be the critical factor in the development of disease blew away the industry's argument that the results of previous studies were suspect, because spot measurements of present-day field strengths could not be correlated with increased cancer risk. And, of course, the fact that both studies were conducted with the financial support and cooperation of the Swedish National Board for Industrial and Technical Development, Swedish governmental health agencies, and the Swedish electric-utility industry contrasted sharply with the lengthy efforts of American utilities to deny the existence of a power-frequency health hazard, and with the pronounced reluctance of state and federal health agencies to acknowledge or deal with the problem.

Shortly after the Swedish findings were announced, Jaak Nöu, the director of the National Board's Department of Electrical Safety, told Louis Slesin of *Microwave News* that Sweden would soon set exposure standards for new homes near power lines, and for all new electrical facilities, and that these standards might require average annual exposures to be in the neighborhood of two milligauss. (In the September/October issue of *Microwave News*, Slesin

pointed out that this would be up to a hundred times as strict as the standards for high-voltage line emissions that have been set by New York and Florida — the only two states in the nation to have imposed such limits.) The National Board is also planning to contact all municipalities in Sweden requesting that an inventory be made of schools located near high-voltage transmission lines. In addition, Swedish regulators have declared that they will propose a ban on the construction of houses within three hundred and thirty feet of high-voltage lines. The most difficult problem, of course, will be what to do about homes near existing power lines, because the cost of reducing magnetic-field emissions from those lines will be enormous.

Here in the United States, where the cost of reducing such emissions will also be enormous, the question is whether government health officials and utility officials will follow the example of their Swedish counterparts and acknowledge the existence of the power-line hazard, or whether they will persist in their efforts to deny it. Acknowledging the hazard would require that government and industry undertake to identify where the hazard exists in its most serious and concentrated form — a good place to start might be hundreds of schools and day-care centers that have been built perilously close to high-voltage or high-current power lines — and then set about to remedy the hazard by rerouting such lines, or burying them in a manner that will drastically reduce their magnetic-field emissions. (The technology for doing so was developed and tested by the utility industry some time ago.) Given the record of the government and the industry in dealing with the power-line problem thus far, however, no one should expect that any

of this will occur soon, if at all, unless a concerned and determined citizenry forces action.

As it happens, determined and prescient citizens have been confronting the power-line health issue across the nation for a number of years. Early and effective opposition to high-voltage transmission lines was organized during 1987 and 1988 by Citizens Against Overhead Power Lines Inc., a group of homeowners in the Highline section of South Seattle, in Washington State, who prevented Seattle City Light from constructing a pair of two-hundred-and-thirty-thousand-volt lines that would have put strong magnetic fields in dwellings situated on either side of State Route 509, between South 98th and South 136th Streets. In 1990, opposition mounted by Residents Against Giant Electric (RAGE), a group of citizens in Monmouth County, New Jersey, who were concerned about the cancer hazard posed by power-line emissions, forced the Jersey Central Power & Light Company to abandon its plan to construct a pair of two-hundred-and-thirty-thousand-volt transmission lines through the towns of Red Bank, Middletown, Holmdel, Hazlet, and Aberdeen. That same year, the efforts of a group called Rhode Islanders for Safe Power persuaded the town council of East Greenwich, Rhode Island, to enact a three-year moratorium on the construction of power lines carrying more than sixty thousand volts in that town, and to close the East Greenwich High School's soccer playing field, where magnetic fields of more than four milligauss had been found to be coming from a nearby hundred-and-fifteen-thousand-volt line that runs through East Greenwich on its way from Warwick to North Kingstown. The East Greenwich moratorium and similar bans that were enacted in the neighboring towns of Foster and Coventry were credited with persuading the Narragansett Electric

Company to drop its plans for building a forty-four-mile-long, three-hundred-and-forty-five-thousand-volt transmission line from Burrilville to Warwick. However, the utility is proceeding with plans to construct an additional hundred-and-fifteen-thousand-volt line in the right-of-way from Warwick to North Kingstown, and officials of the Rhode Island Department of Health have so far refused to investigate a suspicious cancer cluster that exists among residents of East Greenwich whose homes abut this corridor.

During 1990 and 1991, residents of the historic Old Town section of Alexandria, Virginia, who had discovered that high-current distribution wires carrying power to the city's business district were creating magnetic fields of up to forty milligauss in many homes, persuaded city officials to negotiate a franchise-and-operating agreement with the Virginia Electric & Power Company, calling for the city and the utility to share the cost of burying the offending lines, and of redesigning power distribution in a thirty-six-block downtown area. Meanwhile, in New York City, pressure exerted by several citizen-action groups has helped persuade the members of the Manhattan Borough Board to pass a resolution calling upon the City Council to impose a moratorium on the construction and expansion of electric substations by Consolidated Edison and New York City's Transit Authority. There can be little doubt that such measures are needed, because many of the three-hundred-odd substations that are scattered throughout the city abut apartment and office buildings, and some have even been built next to schools. (The Transit Authority has released a list showing the locations of the two hundred and seven substations it operates, but Con Edison has refused to divulge the locations of some of its substations on the grounds that to do

so might make them targets for terrorist attack.) Moreover, since few if any of the high-voltage and high-current wires that lead into and out of these substations have been buried in a way that mitigates their emissions, magnetic fields of extraordinary strength can be found on sidewalks from one end of the city to the other. Indeed, a researcher wandering at random through Manhattan recently measured a magnetic-field level of eighty milligauss at the southwest corner of Lexington Avenue and Seventy-eighth Street; a level of ninety-five milligauss a few doorways east of the Harvard Club, on Forty-fourth Street; a level of eighteen milligauss in front of a store on the west side of Sixth Avenue, near Fourteenth Street; and levels higher than ten milligauss at more than a dozen other places along the way.

In 1991, a thousand landowners, business owners, and local governments in Michigan filed a class-action petition before the Michigan Public Service Commission to block a proposal by the Consumers Power Company to construct a three-hundred-and-forty-five-thousand-volt transmission line that would connect power grids in Michigan and Indiana, on the ground that it was unnecessary and would pose a hazard to people and livestock along its right-of-way. In the autumn of 1992, a Commission administrative law judge recommended that the line be built, even though Commission staff members had issued a report finding that Consumers Power did not need the line. On January 28th, 1993, the Commission voted two-to-one that the proposed line would benefit Michigan residents and would not pose a health hazard. However, on February 19th, 1993, a Calhoun County circuit judge ruled that the utility had not proved that the transmission line was necessary, and that Consumers Power could not condemn privately owned land for the project. Environmentalists around the nation

said that the ruling would encourage grass roots efforts to halt the construction of new transmission lines in residential areas.

In Pennsylvania, nearly nine thousand citizens have filed protests against a plan by the Duquesne Light Company, of Pittsburgh, and General Public Utilities, of Parsippany, New Jersey — the owner of the nuclear plant at Three Mile Island — to build a two-hundred-and-sixty-eight-mile-long five-hundred-thousand-volt transmission line across fourteen counties, in order to bring power from western Pennsylvania to the eastern part of the state and to New Jersey.

Particularly intense concern about the power-frequency hazard has been raised during the past two years in Illinois, where opposition to the activities and policies of the Commonwealth Edison Company, the largest utility in the state, has been mounted by the members of several community and grass roots organizations — among them a group called Mothers Against Commonwealth Edison (MACE) — who have battled fiercely to prevent the company from constructing new power lines and electric substations in residential areas and near schools. In 1991, Mayor Richard M. Daley, of Chicago, denied Commonwealth Edison permission to erect a three-hundred-and-forty-five-thousand-volt line along Metropolitan Rail's train-track corridor between Twenty-third Street and Sixty-first Street, on the ground that the electromagnetic fields given off by the line might endanger the health of people who live or work in its vicinity. (Officials of the Chicago Housing Authority, which operates apartment buildings occupied by some forty thousand people living within a half block of the train tracks, were outraged at not being consulted by the utility about its plans to build the line.) Restrictions have been placed upon the size and location of electric substations in

Wheaton, Evanston, and Antioch, and efforts are being made to limit magnetic-field emissions from Commonwealth Edison's power lines in dozens of other cities and towns across the state. In the Village of Lincolnwood, a suburb with twelve thousand inhabitants that is located just north of Chicago, a study showing that magnetic fields of more than seven and a half milligauss exist a hundred feet from a Commonwealth Edison right-of-way containing a high-voltage transmission line and several high-current distribution lines has prompted Village officials to demand that the utility take steps to reduce the magnetic-field emissions to a maximum level of a milligauss and a half at the setback line of any building in the right-of-way. In Aurora, a city of some eighty-five thousand inhabitants located about forty miles southwest of Chicago, members of a group called Parents Against High Voltage Education have persuaded school-district officials to move the site of a new school away from the vicinity of some high-voltage transmission lines.

Elsewhere in Illinois, the situation existing at the Independence Elementary School in Bolingbrook — a city of forty thousand inhabitants located about thirty miles southwest of Chicago — illustrates how differently citizens in different parts of the nation may react to a similar situation. During the spring of 1991, while teachers and parents of children attending the Slater Elementary School were demanding that the Fresno Board of Education close down the south side of the school because of the hazard posed by the high-voltage transmission lines on Emerson Avenue, some parents of children attending Independence School, which is within seventy to a hundred feet of a Commonwealth Edison right-of-way containing a three-hundred-forty-five-thousand-volt transmission line and a

hundred-and-thirty-eight-thousand-volt line, voiced similar concerns and asked their school-district officials to investigate the problem. At the request of school officials, engineers from Commonwealth Edison came to Independence on April 30th, and took magnetic-field readings throughout the building. As might be expected, the highest levels were found in second-, fourth-, and fifth-grade classrooms that are located on the east side of the building, nearest the power lines, where magnetic-field strengths ranging from two and a half to eight milligauss were measured.

On May 17th, Edward P. Carli, the principal of Independence, sent a letter to parents telling them that students in one classroom had been relocated "as a 'prudent avoidance' measure in order to ensure 'peace of mind' until the end of the school year." He did not mention that this was a fourth-grade classroom in the northeast corner of the school, where the Com Ed engineers had recorded the reading of eight milligauss, or that the relocation had been undertaken at the insistence of the fourth-grade teacher, who had developed cancer after working at Independence since 1976, when the school had opened. He did, however, tell the parents that scientists had conducted many "conflicting" studies of the power-line cancer hazard, and that no federal or state agency had concluded that there was a danger from overhead transmission lines. He went on to say that "since the scientific community cannot be conclusive with its results, it is very difficult to determine what is right and what is wrong." Carli ended his letter by assuring the parents that the power-line hazard "is and will remain a top priority at Independence School," and that they would be kept informed of developments.

Four days after Carli sent his letter, engineers from the electromagnetic-field-measurement program of the University of Illinois' Institute of Electrical and Electronics Engineers came to Independence and recorded a magnetic field of eighteen milligauss in the fourth-grade classroom that had been evacuated. The readings they took throughout the school were two to three times as high as those that had been taken by the engineers from Commonwealth Edison. The University of Illinois technicians found levels higher than five milligauss in thirteen of the school's twenty-four classrooms, and fields of nearly two milligauss in the kindergarten which is located in the corner of the building farthest from the transmission lines. On the same day, these technicians measured magnetic-field levels at the Jonas Salk Elementary School, which has the same layouts and floor plan as Independence but is located several miles away in the eastern section of Bolingbrook and is not near any high-voltage or high-current power lines. The ambient fields at Jonas Salk ranged between .1 and .4 milligauss. On May 24th, Carli sent a second letter to school parents, informing them in general about the two sets of magnetic-field measurements that had been taken at Independence. He said nothing about the measurements that had been taken at Jonas Salk, but he assured the parents that school district authorities would continue to monitor the situation. On May 28th, engineers from the University of Illinois returned to Independence and measured even higher magnetic-field levels than before, including a level of twenty milligauss in the classroom that had been evacuated. That evening, the Valley View Board of Education, which has jurisdiction over Independence, held a meeting at the school to review conditions there with concerned parents. At the meeting, an environmental consultant for the Board told the parents that there was no conclusive evidence that power-line magnetic fields caused cancer, and that "the jury is still out" on

the matter. Two days later, William Harm, a reporter for the *Chicago Tribune*, wrote that school officials had told him that magnetic-field levels at Independence were "low" and posed "no threat to children or adults in the building."

At the end of June, a task force that included Carli, two local physicians, a representative from Commonwealth Edison, and several residents of the school district asked the Illinois Department of Public Health to look into the hazard posed by the power lines. During the summer, members of a group called Parents for a Safe Environment (the same name that parents at the Slater School had chosen for their organization) circulated a petition asking the Board of Education to continue investigating the problem, and got the signatures of more than a hundred parents. They also contacted the local representative of the American Federation of Teachers — the union that represents the teachers at Independence — who told them that until there was conclusive proof that a power-line health problem existed, she did not intend to "scare our members." (A number of teachers at the school had already voiced concern that publicity over the power-line hazard might cost them their jobs.) On August 29th, members of Parents for a Safe Environment described the findings of the childhood cancer studies that had been compiled in the E.P.A. report at a meeting of the Independence Home-School Organization — the local version of the PTA — but they were unable to persuade a single parent or teacher in the group that the magnetic fields measured at the school posed any health risk. By this time, the efforts of Parents for a Safe Environment to alert their fellow citizens in Bolingbrook about the cancer hazard posed by the power lines had been severely criticized by local homeowners, who feared that continued publicity about the problem might discourage home sales and lower property values.

Meanwhile, the fourth-grade teacher with cancer, who had insisted that her classroom be relocated, had transferred to another school, and at the beginning of the 1991 school year, in September, fourth-graders at Independence were once again assigned to classrooms next to the transmission-line corridor, where magnetic fields of twenty milligauss had been measured. That autumn, members of Parents for a Safe Environment gave up their efforts to resolve the power-line issue, and since then there has been little formal discussion of the problem by anyone at the school.

In March of 1992, officials of the Illinois Department of Public Health told state legislators that because the data on the power-line hazard were inconclusive, they could offer no advice on how to deal with the problem. As it turned out, the health authorities had made no attempt to evaluate the health experience of the teachers and students at Independence, but had simply examined the residential locations of Bolingbrook residents who had developed leukemia and brain tumors, and determined that no cases of these types of cancer had occurred among people living within eight hundred and fifty feet of the transmission lines. The adequacy of this investigation was called into question during the winter and spring of 1993, when some of the teachers at Independence learned that there appeared to be an unusual incidence of cancer and other tumors among those of their colleagues who had worked on the east side of the school nearest the transmission lines. (There are about forty teachers and teacher's aides at Independence at any one time, and approximately one hundred teachers have worked at the school since it opened in 1976.) Indeed, an informal survey soon showed that in recent years at least seven teachers who worked on the east side of the school had been stricken with cancer. Two of the teachers had

developed brain cancer; two had developed cervical cancer; one had developed breast cancer; one had been afflicted with colon cancer; and a teacher who never smoked had died of lung cancer. In addition, two teachers with classrooms on the east side of the school were suffering from adrenal gland problems, which have been linked to magnetic-field exposure, and several teachers working there and elsewhere in the school developed tumors or cancer of the uterus. Moreover, a child who attended Independence had developed and died of brain cancer, and a teacher who had worked for sixteen years on the side of the school near the power lines had given birth to a child who died of an immune-system disease.

CHAPTER TWENTY

How Many More Cancers Will It Take?

AS SOME of the homeowners in Bolingbrook had feared, significant devaluation of residential property situated close to high-voltage and high-current lines has already occurred in various sections of the nation where the power-line frequency hazard has become known, and even greater devaluation appears to be in the offing as word of the latest Swedish findings and other information about the problem is disseminated. Together with the health hazard itself, the devaluation is resulting in widespread concern and litigation. Over the past several years, numerous lawsuits have been brought against utilities in states from Maine to California and from Washington to Florida, and hundreds, perhaps thousands, more are clearly in prospect. As early as 1985, a jury in Houston, Texas, found "clear and convincing evidence" of potential power-line health hazards, and awarded damages to a school district that had brought suit against the Houston Lighting & Power Company for installing a high-voltage transmission line on school property. (The utility subsequently removed the line at a cost of more than eight and