Chemical Contamination In Fenceline Communities

Corpus Christi: Hillcrest Residents Exposed to Benzene In Neighborhood Next Door to Refinery Row

By Steve Lerner

Horace Smith
Photo: Steve Lerner

"The life is being sucked right out of us," says Horace Smith as he sits on a stool in his living room with a clear plastic tube running from an oxygen tank up his bare chest to his nose. "I'm real short of breath and it [the oxygen] helps me breathe," explains Smith, who lives on Palm Drive in the Hillcrest neighborhood of Corpus Christi. Just two short blocks from his door and clearly visible from his porch is the huge Flint Hills Resources (formerly Koch) refinery.

"Today it smells like gunpowder," says Smith, 61, whose wife lies in bed at mid-day too debilitated by the fumes to get up. "Last night was bad," continues Smith. His wife was up all night coughing and had to borrow his oxygen "lifeline." "I don't mind telling you I cried last night because there was nothing I could do for my wife."

"We are stuck here. This is all we have," Smith adds gesturing vaguely at the small wooden house where the smell of benzene and sulfur dioxide permeate the room stinging the eyes and irritating the back of the throat. The window screens are lined with tinfoil where the glass is missing and four oxygen canisters lean against the wall. Outside is a neatly kept flower garden and guard dogs are penned up in the back. "We live on government money and that's not much," says Smith who wants the Citgo and Flint Hills Resources refineries to buy him out at a price that would permit him to own a house on the other side of a nearby freeway. "That would be far enough [from the fumes]," he calculates.

"So many sick people live up here until death do us part," Smith observes, enumerating the cancers and other ills of his neighbors. As if on cue, an ambulance pulls up next-door and a woman is wheeled out on a gurney for her twice-weekly dialysis treatment. "Some of the people used to be spry and had a bounce in their steps but now a turtle could catch up with us…. Three quarters of the people here are old, sick and feeble," he continues. Most of the younger residents who were able to move have fled.

On the two streets between his property and the refinery most of the homes have been torn down and just a few holdouts remain – modest building surrounded by a vast lawn. The refineries buy up the properties at fire sale prices ($30,000 to $50,000) from people desperate to move. The prices are low because no one else wants to buy into a community where the air is heavily contaminated and where, as Smith points out, the flares are so bright at night "that you can read a book inside without turning on the light or pick up a nickel off the street."

For a number of years Smith, a retired truck driver who hauled loads in and out of the plants near his home for years, attended meetings with refinery officials but they just made promises they never delivered on, he charges. "You get ear rot listening to that. I can't hack it. It don't pay to crank up the car to go listen to that. It's just a nice way to tell me that I don't matter."

Asked if his doctor is willing to say that he should be relocated away from the source of the fumes for the sake of his health, Smith laughs. “The doctors are paid under the table and the city council is corrupt. You don’t have a chance here.” Now city officials are planning to locate a sewage treatment plant a few blocks away. Officials don’t want the facility too close to the baseball stadium “where people with money might smell it,” he claims. Instead they are going to build it in Hillcrest, a low-income, African American community that is already burdened with heavy emissions. “What they are saying is that we don’t matter,” says Smith with a combination of sadness and outrage in his voice.

Horace Smith’s conviction that he is being poisoned by the refinery he sees out his front door is given substance by publicly available data about emissions from the two Flint Hills Resources (FHR) refineries. First bought in 1952, the Koch Petroleum Group LP built the west side refinery in 1981 and a second east side plant in 1995. In 2000 a criminal indictment was brought against the company for hiding and misrepresenting benzene pollution and, a year later, corporate officials paid a $10 million fine and agreed to invest another $10 million in pollution control projects.[1] The Koch refineries were renamed Flint Hills Resources (FHR) in 2002, the year in which the two refineries released 8,729,324 pounds of criteria air pollutants and an additional 584,539 pounds of toxic chemicals.

Some of the accidental releases from these FHR refineries are clearly dangerous to the health of nearby residents. For example, on August 28, 2003, FHR West released 4,333 pounds of “hazardous air pollutants including 130 pounds of benzene and 4,203 pounds of hexane. “Benzene is a recognized carcinogen that causes leukemia, a developmental toxicant, and a reproductive toxicant. It is also a suspected toxic to the cardiovascular and blood system, endocrine system, gastrointestinal system or liver, immune system and skin or sense organ.”[2] Breathing air laced with hexane is not much better for you and might help explain a number of the symptoms from which Smith and his wife suffer. “Hexane is a suspected developmental toxicant, neurotoxicant, reproductive toxicant, and respiratory toxicant. The symptoms of hexane exposure include irritation of the eyes and nose, nausea, headache, numb extremities, muscle weakness, dermatitis, dizziness, and chemical pneumonitis.[3]

Suzie Canales: Homegrown Activist

Suzie Canales is my guide on a toxic tour of Corpus Christi’s Refinery Row, the densest concentration of refineries in the nation. For a full hour she accompanies me on a meandering drive through a landscape of giant industrial plants, which includes six major refineries owned by Citgo, Valero, and the Flint Hills Resources (Koch) companies, as well as an asphalt plant, a Javelina gas processing unit, and facilities owned by Trigeant, and Air Liquide. Two of these refineries – Flint Hills Resources and Valero – earned Corpus Christi the distinction of being the only city in the nation to have two refineries in the list of top ten emitters of cancer-causing chemicals.

Suzie Canales
Photo: Steve Lerner

Canales, a former special education provider, Navy wife, and now grandmother never thought she would find herself organizing communities along the fenceline with hazardous waste dumps and refineries. But, in fact, her transformation into a critic of the way in which heavy industries have contaminated residential areas is not without its internal logic.

Canales grew up on Karen Drive in a race-zoned neighborhood in Corpus Christi, a city the Latin name of which means “Body of Christ.” The Cunningham area in which she

was raised was, according to city records, designated in the 1940s by city officials as an area for “Mexicans” It was located adjacent to two oil waste dumps that later were used as municipal garbage landfills. This was not by accident; argue environmental justice activists who documented a pattern of placing hazardous waste dumps in communities of color. One of these near the Canales homestead was the 47-acre Greenwood hazardous waste dump. It separated the 44 homes in the Cunningham residential neighborhood from another race-zoned area designated for “Negroes.” Race zoning was subsequently ruled by the courts to be illegal but low-income and minority residents continue to live in these neighborhoods.

As a child Canales, whose maiden name is Bazan, was unaware that she lived in a race-zoned area. She attended the Chula Vista Elementary School and Cunningham Jr. High School where she marched in band practice on the top of a smaller hazardous waste dump that had been covered over. It wasn’t until several decades later, after she married, had children, and traveled with her Navy husband for 20 years to a variety of posts, that she became aware of her family’s early exposure to toxic chemicals.

Ready to retire from the Navy and settle in New England, Canales received word from her family in Corpus Christi that her older sister, Diana Bazan, 42, was dying with stage-four breast cancer that had metastasized to the brain. Quickly changing plans, Canales returned home to attend to her sister who died on December 29, 1999. At the funeral a number of friends who attended Cunningham High School mentioned to Canales that a large number of their former classmates either died of cancer or were currently suffering from it. Canales began to keep a list of their names.

The day after the funeral, while cleaning out her sister’s house, Canales and other members of her family began to talk over about whether or not her sister’s death could have been prevented. “Maybe it was the dumps that made her sick,” Canales mused. She then placed ads in the *Thrifty Nickel* and *Adsack* asking former residents and students from the Cunningham neighborhood to call her if they or someone in their family had cancer. After receiving numerous calls and doing an informal health survey in the neighborhood, Canales began to suspect that there was a public health problem.

Working with a number of concerned citizens, Canales and her family founded a grassroots group called Citizens for Environmental Justice (CFEJ) in March, 2000 and began to hold press conferences and appear on television and radio shows to expose the problems being experienced by low-income people of color who still inhabited the previously race-zoned neighborhoods adjacent to the refineries and hazardous waste sites.

Canales and other members of CFEJ subsequently embarked on a lengthy research effort in the course of which they documented the existence of the hazardous waste sites near her childhood home and school, a fact that was denied by city officials. They also uncovered records of the deliberations of city officials who had passed the race-zoning ordinances that placed her and her family in one of the middle homes on a street bracketed with hazardous waste sites.

The research Canales and her family did took years and is extraordinarily detailed and comprehensive. Her small apartment is stacked with piles of copied city documents, maps, lengthy scrolls of news clips taped to butcher paper, epidemiological studies, and official records. In addition to searching through the property records at Town Hall, Canales also delved into City Planning archives, the Rail Road Commission files, as well as School Board meeting records looking for clues about where poisons had been buried. What she found was that Nueces County and Corpus Christi were at one time home to an estimated “3,760 wells in 89 oil fields, within a radius of 125 miles of the port.” As a result Corpus Christi is pockmarked with hundreds of oil waste pits and dumpsites, many of which were later converted into garbage landfills. She also uncovered the fact that oil and gas pipelines ran beneath her old community and school and were routed through the waste dumps themselves. This, she became convinced, was a dangerous practice that corroded the pipes and led to further contamination.

Elevated Levels of Cancer and Birth Defects

In addition to generating a map of old and new oil industry waste sites, Canales and her family began to look into whether or not there was evidence that exposure to toxic chemicals from the oil industry had caused elevated levels of disease in her community. Their first impulse was to conduct a door-to-door informal health survey in the Cunningham neighborhood where she lived as a child. What she found was a surprising number of cancers, birth defects, and a high incidence of hysterectomies among women some of whom were as young as 17 or 18 years old. Other health complaints included headaches, nosebleeds, and immune deficiency diseases.

Aware that this kind of informal health study was only a first step, Canales began to look for data about cancer rates in Corpus Christi and to push for new studies. The paper chase proved frustrating. The first studies done by the Texas Department of State Health Services (TDSHS) in 2000 showed no high incidence of cancer but, with help from outside experts, Canales did a critique of the study noting that it only looked at two years of data compared with most state studies that covered 5 years. “These studies are designed to fail,” she notes.

Unwilling to give up, Canales took her complaint to an ombudsman at the federal Agency for Toxic Substances and Disease Registry (ATSDR) operated by the Center for Disease Control (CDC) in Atlanta. ATSDR deferred to the Texas Department of Health Services (TDHS). Convinced that the state cancer data was incomplete, Canales went back to the ombudsman at ATSDR and asked epidemiologists to take a more comprehensive look at the cancer data in Corpus Christi. A second study, published in October 2001, reported elevated levels of colon, stomach, bladder, kidney, renal, esophageal, breast and leukemia cancers. State officials said that these were unlikely to be caused by environmental exposures to pollution from refineries and hazardous waste sites, arguing that if the problem were due to environmental exposure then the increase in cancers should be found across gender and ethnic lines. This reasoning appeared faulty to Canales who suggested that more men worked in the local petrochemical plants and might have had occupational exposures that increased their cancer rates. The collection of cancer data by zip code also appeared to Canales as an inappropriate way to determine whether or not an environmental cause was at the root of elevated cancer rates in her community. These cancer data were collected in the zip codes where a person died rather than where they lived for extended periods prior to their death. Since people move it is necessary for researchers to go into the community and interview residents to establish where they lived in order to find out whether or not an environmental exposure led to disease and death. But such a study requires money and the political will to find the cause of community health problems, she adds.

Despite the inadequacies of state cancer statistics, Canales began to find confirmation elsewhere for her suspicions that the health of residents in her county was being impaired by industrial contamination. One such source was a study published by Public Citizen, which found that residents of Nueces County “have higher death rates from cancers associated with industrial pollution and higher hospital admissions for adult and pediatric asthma attacks were significantly elevated compared to the state average.”

Further evidence that industrial pollution was a public health threat in Corpus Christi came when the first in a series of studies of birth defects was published starting in August 2001. The most recent study published on July 7, 2006 revealed that infants born from 1996 to 2002 in Nueces County, where Corpus Christi is located, had an 84 percent higher chance of being born with a birth defect than elsewhere in the state and a 17 percent chance of being born with a severe defect. This caught the attention of the media and suddenly people began to think that perhaps contamination was causing health problems in the community.

Birth defects are a better indicator of environmental problems than cancer rates because the latency period is just nine months, while cancer has a latency period of 10 to 40 years, Canales explains. Tragically, during the time period when Canales was pushing for more birth defect

studies, two of her grandchildren, Justin and Julian, were born with two different heart defects of types found to occur at elevated levels in her community.

This provided Canales with a further impetus to look for the cause of health problems in her community. While health officials were unwilling to make the connection between contamination and community health problems, Canales forged ahead by plotting the location of the waste sites on a city map and then adding to a plastic overlay the location of the cancer. “It matches up,” Canales reports: the combined maps demonstrate how closely the location of the waste sites and the cancer incidence coincide.

Collecting Evidence of Refinery Row’s Toxic Emissions

Convinced that her sister had been a “casualty of environmental racism” and suspecting that her grandchildren’s birth defects were caused by industrial contamination, Canales decided to broaden her research into environmental pollution in Corpus Christi to include communities located adjacent to the six Citgo, Flint Hills Resources (Koch), and Valero refineries. It was this interest in petrochemical exposures that brought her to Hillcrest where she found the most intense contamination in the city. It was also a low-income and heavily minority community: all the census tracts along Refinery Row are populated primarily by low-income residents and people of color, Canales notes.

As Canales and her colleagues at CFEJ began to look into data that were available from the monitoring of toxic chemicals coming from refinery row, they found that the state had a number of monitoring stations but that they were neither using readings from them to trigger enforcement actions nor to notify residents when there were dangerous emission levels. “They were saying that there were no health concerns when their monitors were indicating otherwise,” observes Canales.

The Texas Commission on Environmental Quality (TCEQ) maintained a monitor on John’s street in Hillcrest that found very high levels of benzene but state regulators never took any enforcement actions based on monitoring, Canales charges. Unfortunately a lot of monitoring is based on averaging. The problem with this is that residents do not breathe in averages; they breathe heavy concentrations of chemical releases from the facilities. “If traffic cops gave speeding tickets based on averaging no one would get a ticket because low speeds would cancel out the high speeds,” noted Neil Carman, a former state regulator who now heads the Lone Star Chapter of the Sierra Club’s air quality program.

One particularly egregious example of state regulators failing to use their monitors to protect the community began in 1997 when an air pollution monitor was installed at the intersection of Buddy Lawrence and Huisache Streets in the midst of Refinery Row near the Oak Park Triangle neighborhood. From the time it started collecting data it registered high levels of benzene, a known carcinogen, notes Canales. In fact, from the years 2002 to 2005 benzene readings were either the first, second, or third worst in the state. And these readings were annual averages and do not take into account the high spikes of benzene releases.

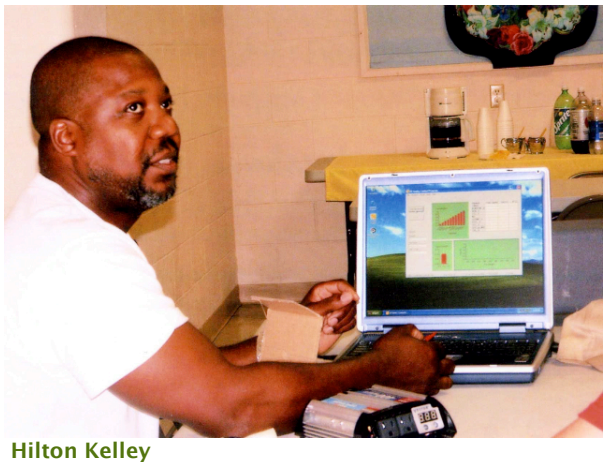
Canales is particularly outraged that nothing was done with this data because there was a school bus stop at this same intersection where children would wait for a ride to Gibson Elementary School. “No one has ever looked to see what happened to the health of those children who used to wait for the bus there,” Canales observes.

In an analysis of the monitoring data collected at the Huisache intersection from 1997 to 2003, Wilma Subra, an independent chemist who helps grassroots groups understand complex regulatory and health issues, notes that for every year during that period benzene levels exceeded the Texas Annual Health Effects Screening Level of 1 ppb, spiking at 3.8 ppb in 1997 and rising above 2 ppb in 2001 through 2003. The state’s 24-hour screening level of 4 ppb was

also exceeded at this intersection on specific days from 1997 to 2003 rising to 27.65 ppb in 1997 and 28.54 ppb in 2002. These readings are seven times the acceptable standard, Subra notes. “The concentrations of Benzene in the ambient air over such a long time period is unacceptable,” she concludes.

Canales tried to convince TCEQ regional director Buddy Stanley to come to the community and discuss the high levels of benzene detected at the Huisache intersection but in a letter to her on March 19, 2004 he declined arguing, “none of the monitors have detected benzene levels of a health concern.”

Fed up with what she saw as the do-nothing approach of state regulators, Canales started her own monitoring in August 2003. Denny Larson, director of Refinery Reform Campaign and Global Community Monitor, came to Corpus Christi and trained Canales and a few other residents in the use of citizen air monitoring devices made out of plastic buckets, air pumps, and special bags in which an air sample can be trapped and then sent off to a lab for analysis. “We documented gases outside the refinery fenceline” using the new equipment, Canales says.



Hilton Kelley
Photo: Steve Lerner

A year and a half later, on February 11, 2005, Hilton Kelley, a fenceline activist from Port Arthur, Texas, arrived in Corpus Christi with a $35,000 Cerex UV “hound” monitor that gives a computer readout of toxins in the air. “Before that when Cindy [Canales’ sister and co-founder of CFEJ] and I would patrol we’d sniff and wonder what the heck we were smelling that was so bad. Then, when Hilton brought the Cerex, we actually saw the names of the gases come up on the laptop screen. We were in awe of the technology. Finally, we were seeing identified what we were smelling,” Canales recalls. One of the areas she monitored was the Buena Vista Mobile Home Park where sixty trailers are parked next to the Valero East refinery tank farms and Javelina gas processing plant. It was there that Canales, using a Cerex monitor captured a reading of 42 ppb of 1,3 butadiene, a recognized carcinogen that also causes respiratory, nervous system, and liver problems. Later, on November 14, 2005, Canales recorded readings of benzene releases from the same refinery spiking at 114.09 ppb at 3:38 p.m. and at 42 ppb at 7:56 p.m.

“We found what we already knew, that refinery emissions were crossing the fenceline into the community contrary to what industry and the TCEQ were saying. The state, federal, and corporate sources failed to uncover it because they didn’t want to. They have the money and capability to uncover it but they are not into protecting human health, they are into protecting industry,” Canales asserts.

Bird Deaths Lead to Overdue Regulatory Action

When migratory birds were found dead covered with oil in open tanks, regulators finally were forced to grapple with the problem posed by benzene releases coming from Refinery Row. “Why did it take the birds dying to make the agencies force Citgo to comply with regulations,” Canales asks.[4] This seems a reasonable question given that Corpus Christi held the dubious distinction of having either the first or second largest emissions of benzene in the nation from 2001 to 2004.[5]

One massive source of benzene releases came from two uncovered Citgo oil-water separator tanks found to be holding 4.5 million gallons of oil during an unannounced inspection in 2002. These tanks should have had fixed or floating covers but they did not. On August 9, 2006 a Federal Grand Jury issued a ten count indictment against Citgo for violating the National Emission Standard for Benzene Waste Operations for releasing tons of uncontrolled benzene during the nine year period from January 1994 to May 2003 in violation of the Clean Air Act and the Migratory Bird Treaty. Citgo officials ultimately paid two fines, the first for $725,000 in 2002 (later reduced by half in return for voluntary contributions to conservation and pollution prevention efforts); and the second for $1.74 million in 2004.

Why did it take so many years for state regulators at the Texas Department of Environmental Quality (TCEQ) to require Citgo to stem massive releases of benzene? Neil Carman a former environmental regulator for the state and current director of air programs for the Lone Star chapter of the Sierra Club blames it on a "coziness" in the relationship between regulators and the industry they are supposed to be regulating. This "coziness" has been endemic to the state's environmental regulatory system since the state adopted a "cooperative enforcement policy" since George W. Bush became president, observes Victor Flatt, who holds the A.L. O'Quinn Chair in Environmental Law at the University of Houston Law Center.[6]

But the problem for residents facing contamination from facilities along Refinery Row goes well beyond a couple of uncovered oil tanks. For example, one of the six refineries, Valero Energy Corporation, which pulls in some $70 billion in annual revenues, has contributed heavily to air contamination in Corpus Christi over the last two decades. In 2003 the Valero West refinery emitted 7,520,040 pounds of "criteria air pollutants," including nitrogen oxides, sulfur dioxide, carbon monoxide, ozone, particulate matter, and lead. The refinery released an additional 268,904 pounds of criteria air pollutants during the same year in emission events, scheduled maintenance, start-up, and shutdown activities (EE/SMSS). The same year the refinery also let loose 268,904 pounds of "toxic chemicals" into the air – a category of even more harmful to health than the criteria air pollutants. This record placed Valero West in the top 10 percent of the "dirtiest facilities" in the U.S.; and in the top 20 percent of the worst emitters of recognized cancer-causing and birth defect-causing chemicals.[7]

While it is notoriously difficult to prove in court that these releases are the cause of health problems in surrounding communities, common sense suggests that they are. Also suggestive is data, which show that following heavy accidental emission events attendance drops at nearby schools. For instance, two days after the facility released 54,523 pounds of sulfur dioxide into the air on May 20, 2004, attendance dropped at Gibson Elementary School, located within a two-mile radius of the plant.

Academics who study the ethics involved in engineering solutions that permit industry to safely operate near residential areas use as a standard what they call "the Golden Rule." Under this rule engineers are taught to ask themselves if they would be willing to live in the community located next to the hazardous industrial process.[8] Given the health risk of pollutants emitted by the industries described above, it is unlikely that any industrial engineer would risk his or her health or that of their family in the fenceline communities immediately adjacent to Corpus Christi's Refinery Row.

Hillcrest Residents Tell of Exposure to Refinery Fumes

One of the residents on the frontline of toxic chemical exposure in the Hillcrest community on the fenceline in Refinery Row is Daniel Pena, 44, a furniture mover who has the stocky build of his trade. "People are tired of being treated like [filth]. We are all tax-paying citizens and we are entitled to what they have on the other side of town," he asserts. By this, Pena explains, he

means that residents of Hillcrest, where he has lived for the past 28 years and owns property, should not be subjected to unsafe levels of contaminants. If the refineries cannot reduce their emissions to safe levels, then residents should be bought out at a fair price so they can buy a home elsewhere, he argues.

Daniel Pena
Photo: Steve Lerner

Pena has irritated eyes and throat from the fumes and pains in his stomach, which are sometimes so acute he has gone to the emergency room on several occasions. Other men in the neighborhood have similar problems. His brother also has problems breathing. “We are stuck here. We’re boxed in by the refinery, the freeway, the ship channel, and now they want to build the sewage treatment plant next to us,” he explains. “That’s just environmental racism to put that on the north side of town,” he says. But trying to protest these conditions has proved ineffective, he continues. “Industry is twice as strong here because it is backed up by city officials.” Pena is incensed because following a fire at one of the refineries police and firemen who responded to the emergency were given generous compensation for their exposure to released toxic chemicals but residents were not. This strikes Pena as just flat-out unfair.

Gwendolyn Nickerson
Photo: Steve Lerner

Another former Hillcrest resident who thinks her health may have been impaired by exposure to contamination is Gwendolyn Nickerson, 44, who lives in public housing in a high-crime area known as “The Cut.” Prior to moving to her current residence, Nickerson lived with her mother and daughter in Hillcrest on the fenceline with the Flint Hills Resources and Citgo refineries. It was during this period, in 1999, that she was diagnosed with scleroderma, a rare autoimmune system disease that causes her body’s immune system to attack her tissues creating a scarring or fibrosis of the skin and organs.

“Too many people are sick of rare diseases that no one ever had before,” says Nickerson, an emaciated woman, who says she has lost a lot of weight since being diagnosed. Nickerson has one hand that is curled inward from the tightening and hardening of the skin making it impossible for her to grasp objects or hold onto her jobs at the Family Dollar and Whataburger. She also suffers from acute pains to her extremities whenever it is cold, a result of something known as “Reynaud’s Phenomenon” in which spasms of the tiny arteries vessels interrupt the supply of blood to the fingers and toes.

“They say it can’t be cured, just treated,” says Nickerson, fighting back tears as she sits in her three-story walk-up apartment where she lives with her 18 year-old daughter who has helped her deal with her disease since age ten. Nickerson lost all of her teeth as a result of the disease, has

difficulty walking any distance, describes herself as “short winded,” and sometimes can’t get out of bed or feed herself.

The causes of scleroderma are unknown but two current theories suggest the illness is either passed from one generation to the next genetically; or it is caused by “environmental factors.” Since no one in Nickerson’s family has had similar problems and she has been exposed to heavy concentrations of petrochemical toxins, the environmental exposure could have caused or triggered the disease. Specifically, benzene and butadiene, both chemicals put out by nearby refineries, are listed in the medical literature as having “good” evidence that exposure to these chemicals is linked to the disease. “It makes you wonder,” Nickerson says about whether or not her disease might be related to exposure to chemicals from the refineries.

“Ma, I Can’t Breathe”


Elizabeth Sambrano
Photo: Steve Lerner

Some Hillcrest residents are pretty sure that their respiratory problems are related to fumes coming from the refineries. Since moving to the home of her father in Hillcrest two blocks from the refinery, Elizabeth Sambrano, 31, says that her eight kids have been chronically sick. A number of them have asthma and respiratory problems that just won’t quit. She has now taken her children to the doctor with breathing problems so many times that the doctors no longer want to see them but Sambrano keeps going back. “I can’t help it. When my 18-year-old says: ‘Ma, I can’t breathe,’ I have to take him,” she says.

When her doctor suggested to one of her sons that his problem breathing was caused by his mother’s failure to keep their house clean her son objected and said that his mother did a good job of housekeeping. But the comment made Sambrano mad: “I’m poor. I don’t have everything that you find in a rich person’s house but I keep what we have clean.” As an alternative explanation, Sambrano suggested to the doctor that the fact that her father had to use an oxygen tank to help him with his breathing and that her children all had respiratory problems might have something to do with living next door to a petrochemical plant. “You don’t live inside the refinery,” the doctor replied, according to Sambrano, who felt his response failed to take into account the fact that fumes from the plant escape across the fenceline into the residential neighborhood.

Sambrano is convinced the fumes are sickening her family. Since moving to Hillcrest she developed a cough and sometimes borrows one of her kid’s inhalers to help her breathe. She is also often depressed and without energy. “And that is not me,” she continues, explaining that she normally is more upbeat and energetic. We never used to use medications before we came here, she adds. If she closes the windows and turns on the air conditioning it helps her three children with asthma breathe but she can’t do that all the time because it is expensive. “The odors come from the plant and you can smell it in the house. It gets into the walls and into your clothes. I had some clothes I had to throw out it was so bad. And when my mother-in-law came to the house she said it smelled ugly. Now, no one wants to come visit,” she says. “I’m worried my dad will die,” says Sambrano whose mother died in her sleep recently. “If dad died I wouldn’t know what to do because I am a single parent. Sometimes I go outside and cry because I don’t know what to do. It is too expensive to move,” she explains.

Not far from where Sambrano lives is the home of Janie M. Mumphord, 75, a woman of erect bearing who sits inside her neatly kept home that is filled with a chemical smell akin to an insecticide. The odor stings the eyes and leaves you light-headed. Mumphord’s husband lived for

years on oxygen and finally succumbed to emphysema. “I didn’t have asthma until after I moved here in 1969,” says Mumphord who also suffers from high blood pressure. During one of the explosions at the nearby refinery she was so frightened she was placed in intensive care at the hospital. “I looked out of the back of the house and saw black smoke and fire leaping high into the air. Now I sleep in fear that it will happen again. I pray every night for God to keep back the fires,” she says. “The doctor told me to move out for my health but we are retired and we are stuck here surrounded on three sides by refineries,” she says. Others have sold their houses for $45,000 “but I am not going to give my house away,” says Mumphord, who notes that such a sum would not permit her to buy a home in an unpolluted neighborhood. “A whole lot of people here are dead from cancer or respiratory disease,” she continues. So when refinery officials say that they know what it is like living here she is quick to disagree with them: “No you don’t,” she tells them. “You stay in my house and I will stay in yours and then you will know,” she adds. “These fumes are killing us but I don’t think they care,” she concludes.

“It’s disgraceful what is going on here [in Hillcrest],” Canales says. Next door is the Flint Hills Resources (Koch) Refinery, which has paid the largest civil and criminal fines in U.S. history and now Citgo is under criminal indictments. “The injustice goes on and on as people continue to suffer from the refinery and chemical plant pollution and the regulatory agencies ignore pleas for help,” she adds.

Prior Organizing Efforts

Canales is not the first organizer to campaign for the reduction of pollution from Refinery Row facilities and the relocation of residents exposed to the fumes. In the early 1990s, Rev. Roy Malveaux, a Baptist minister, organized People Against Contaminated Environment (PACE) and he preached sermons denouncing the harm done to the community by the refineries. Industry officials offered jobs to the sons of the deacons in his church and subsequently threatened to fire them if Rev. Malveaux was not sent packing, claims Denny Larson at Global community Monitor. Other activists were also silenced with payoffs, Larson continues.

Rev. Harold T. Branch also decried the hurtful impact of refinery contamination on members of his Hillcrest congregation. Once Branch received a call from officials at the then Koch (now Flint Hills Resources) Refinery asking him to come talk with them about the sermons he had been giving about the contamination. But when he showed up with half a dozen other members of the community suddenly the corporate officials were not interested in a discussion and sent them away, he remembers. That was the last real chance for a dialogue, he says.

Reverend Harold T. Branch
Photo: Steve Lerner

Branch, 88, moved to Hillcrest in 1955 from an area known as “The Cut,” located next to a malodorous sewage treatment plant. “Moving to Hillcrest seemed like an upgrade to us,” he recalls. Only later, as the refineries began to expand and engulf the north side neighborhood he had moved into, did Branch and other residents come to understand why the whites had moved out as the smells from the refineries intensified. “A lot of my congregation died of cancer. Most of the men have died – only two are left,” Branch observes. ‘My wife suffers from dizziness and benzene causes it,” he continues. As evidence of this Branch reaches into his pocket for his wallet and carefully unfolds an old, fragile newspaper clipping that lists dizziness as

one of the impacts of benzene exposure. “They are going to wait until we all die before they do anything,” Branch predicts.

A former member of the City Council from 1971 to 1974, Branch was involved in negotiating contributions to the city coffers from the refineries. Twenty years later he and members of his congregation joined a class action lawsuit against the refineries asking for damages and funds for relocation. Residents of two fenceline communities -- Oak Park Triangle and Hillcrest -- joined the lawsuit over the numerous explosions, groundwater contamination and high levels of benzene and other pollutants coming from the refineries. Citgo officials were reported to have set aside $17 million to pay for relocating affected residents but in an inexplicable legal decision it was decided to pay for the relocation of only the residents of Oak Park Triangle and not those of Hillcrest. What became of the $5 million set aside for Hillcrest residents remains a mystery today.

Outside Help

Picking up where Rev. Branch and Rev. Malveaux left off, Canales’ organizing activities have begun to capture newspaper headlines. As a result her work has attracted the attention of organizers in the state and national environmental justice movement who have begun to provide her with help. Denny Larson from The Refinery Reform campaign and Global Community Monitor, who helped her set up the “bucket” air monitoring, provided funding for Canales to continue her organizing work, paid for the analysis of air samples she collected, and bought her a 1994 Jeep Cherokee when her old car fell apart and she was unable to get to Hillcrest and patrol the perimeter of Refinery Row. Without the financial assistance and advice from Larson, Canales says, she would not have been able to continue as an organizer.

Canales also received help with some of the hardware needed to run an effective campaign. Anne Rolfes, founder and director of the Louisiana Bucket Brigade, who has organized fenceline efforts in NORCO and Chalmette, Louisiana near refineries in those communities, donated a computer, as did Jennifer Carraway who worked at Public Citizen at the time and has since moved to Environmental Defense. More recently Stan Johnson at the Environmental Support Center provided a new laptop computer, a digital camcorder, a digital camera, a digital projection screen, and a printer/scanner/fax machine. Canales put this equipment to good use on April 1, 2006 when she filmed heavy particulate pollution coming off the coker unit of the Citgo West facility. The film shows the lens of the camcorder gradually becoming occluded with soot. She subsequently showed this footage to TCEQ regulators at a regulatory hearing on June 8, 2006.

While engaged in filming the pollution being emitted by the Citgo facility, Canales was reported to the National Response Center for “suspicious activity” and was subsequently interviewed by agents from the Federal Bureau of Investigation in her apartment. What was she doing filming a petrochemical plant, the agents asked? Canales told them she had been patrolling Refinery Row for years monitoring environmental problems associated with the operation of the plants and produced voluminous documentation to prove it. Canales found it strange that she had been reported for “suspicious activities” after having patrolled along the roads around the refineries for years. Why hadn’t she been reported before, she wondered. Was the report perhaps retaliation for her intervention in Citgo’s air permit application, she conjectured. Whatever the reason, it was scary to have the FBI come to her home, Canales says, but she remains unwilling to stop patrolling Refinery Row to document evidence of pollution.

Moving beyond simply capturing monitoring data that showed that toxins were leaving Refinery Row and entering Hillcrest, Canales began to become pro-active in her public environmental health campaign by intervening in the air permit process of a number of refineries. When the Citgo East plant next to Hillcrest proposed an expansion of its Fluidized Catalytic Craking Unit that would have increased production by 3,500 barrels of oil a day and produced an additional 500 tons a year of sulfur dioxide emissions, Canales contested the expansion at a permit hearing in 2005 and two years later was informed that the Texas Commission on Environmental Quality

had voided (turned down) Citgo's permit application because of the company's unwillingness to install the best available pollution control equipment. Since contesting an air permit is an extremely technical endeavor, Canales sought help with it from Neil Carman at the Texas Lone Star Chapter of the Sierra Club, Eric Schaeffer at the Environmental Integrity Project in Washington, Denny Larson with Global Community Monitor, and Enrique Valdivia at the Texas Rio Grande Legal Aid Society. "It was a huge environmental justice victory that made all the newspapers," reports Canales who was honored in Washington, D.C. with the Congressional Hispanic Caucus Institute Award for Outstanding Achievements in Environmental Justice.

Flint Hills Resources Supplementary Environmental Project (SEP)
Photo: Steve Lerner

Canales also protested the fact that on the rare occasions when regulatory agencies imposed fines on the refineries for accidental emission events, money from the fines rarely returned to the community to help the people most affected. In the tortured jargon of the regulatory bureaucracy there is something known as "Supplementary Environmental Projects (SEPs)," which corporations caught polluting can voluntarily agree to fund in return for reduced cash fines. Ideally, these projects should provide some direct benefit to the residents in the communities where the emissions have the most powerful impact, however, this is rarely the case, Canales observes. In a paper she wrote documenting what SEPs pay for in the Corpus Christi area, Canales found they funded land conservation acquisitions, bird nesting sites, fire department equipment, conferences in Houston, programs to teach water conservation, and a vehicle emission sensor program. "SEP's are routinely awarded for wildlife and other projects; left out of the equation is the impacted community itself that had to bear the burden to their health from these violations," Canales writes.[9] As an alternative, Canales suggested that a SEP with Citgo be amended to provide funding for one of four proposals put forth by Hillcrest residents: a body burden study of pollutants found in humans, a respiratory health survey, compensation for property depreciation, and improvements in the emergency planning and preparedness along the fenceline. Citgo refused to fund any of the above.

No Invitation to the Prom

All of Canales' activities criticizing the amount of pollution emitted by Refinery Row industries and holding press conferences revealing regulatory inaction have earned her a certain reputation among the Port of Corpus Christi industrial managers. In a telephone conversation, one of the officials told Canales: "You have stirred them up. You've become their enemy. You've set yourself up as their archenemy" and "you wouldn't be anyone's first choice for a prom date among that crowd." It isn't fun knowing that the owners of multi-billion dollar industrial operations don't like you, says Canales who thinks that her phone is tapped, that she is sometimes followed, and that even her hotel room has been entered while she was preparing to give a press conference in Washington, D.C.

But her anxieties over the possible consequences of being a thorn-in-the-side of powerful petrochemical executives has not deterred her from her work delving into the details of how her community is being poisoned by large, nearby industries. With remarkable perseverance,

Canales has made herself expert in the minutia of how SEP funds are targeted, how to challenge refinery air permits, how to operate sophisticated air pollution monitoring devices, and how to read a regulatory report.

Many of the grassroots activists who end up doing the hard work of organizing in poor, fenceline communities become involved because they are convinced someone in their family became ill as a result of exposure to industrial contaminants, observes Denny Larson, director of Global Community Monitor. Likening Canales to Lois Gibbs, a recognized activist from New York, Larson says of Canales: “Her Love Canal happens to be Refinery Row and the toxic landfills of the Corpus Christi area.”

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This story and others like it can be found on the Collaborative on Health and the Environment website at: www.HealthandEnvironment.org.

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Endnotes

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