"Shortly after operations began, we started to experience extreme headaches, runny noses, sore/scratchy throats, muscle aches and a constant feeling of fatigue. Both of our children are experiencing nose bleeds and I’ve had dizziness, vomiting and vertigo to the point that I couldn’t stand and was taken to an emergency room. Our daughter has commented that she feels as though she has cement in her bones.” Pam Judy 20 July 2011 - Carmichaels, Pennsylvania resident

In 2006 Pam Judy and her family had a new home built on their farm. For three years Pam and her family enjoyed the peace and tranquillity of the countryside. However, in 2009 that all changed when a gas compressor station was built 780 feet from her home. Within a short space of time Pam and her family were unable to spend time outside any more as they came down with all sorts of mysterious health problems.

In November 2010 Pam’s son went outside and came home with blisters in his mouth and had extreme difficulty swallowing which led to a visit to the nearby hospital.

This led Pam to conduct research into emissions from compressor stations. She then contacted Calvin Tillman Mayor of Dish in Texas where many people had experienced similar health problems. Mayor Tillman provided Pam with a list of blood and urine tests to determine levels of chemical exposure. The results of the tests revealed measurable levels of benzene and phenol in her blood.

Pam was determined to force the authorities to take action that would protect her family. In June 2010 she persuaded the Pennsylvania Department of Environmental Protection to carry out air quality tests over four days on her land. The results revealed the presence of 16 chemicals, including benzene, which are all known carcinogens.

In November 2010 Pennsylvania Department of Environmental Protection released a final report into air pollution in the area where Pam Judy and her family live. The report stated that the Department "could find no emission levels
that would constitute a concern to the health of residents living near Marcellus operations ...”

Sadly, the experience of Pam’s family is becoming all too familiar to ordinary people all over America who are being poisoned by the toxic chemicals being released by the fracking industry.

The Environmental Protection Agency (EPA) released a damning report in February 2013 which admitted that there is no systematic air quality monitoring of the emissions from the fracking industry which emits,”large amounts of harmful pollutants that impact air quality on local, regional, and global levels.”

The report further noted how the EPA underestimates chemical pollution from oil and gas wells and did not have a, ”comprehensive strategy for improving air emissions data for the oil and gas production sector ...”

**Politicians Fail to Protect The Public**

At a state level the same failure to protect the public is in evidence. In some states there is open collusion between the oil and gas industry and elected officials. The situation in Texas shows how the interests of big business come first while no action is taken to protect local people who are being poisoned.

Inside Climate News has produced a series of excellent reports that chart the collusion of corrupt Texas officials who worked hand in glove with the fracking industry to prevent regulation of toxic air emissions. In 2011 the Texas legislature approved SB1134, a bill that prevented new environmental regulations from being applied in the Eagle Ford region of South Texas. Inside Climate News reports that,”Since then, more than 2,400 air emissions permits have been issued in the Eagle Ford without additional safeguards that would have reduced the amounts of benzene, hydrogen sulphide, formaldehyde and other toxic chemicals that drift into the air breathed by 1.1 million people.”

This should be no surprise considering how large sections of the political establishment of Texas has been bought off by the big bucks of the fracking industry. State Representative Tom Craddick, who steered the bill that prevented new regulations from being applied in the Eagle Ford shale region, has shares in five oil companies that are active in the Eagle Ford area and has received $800,000 from industry employees and related political action committees.
To compound matters Craddick’s daughter Christi has received $600,000 from the fracking industry to win a seat on the Texas Railroad Commission. The Railroad Commission issues permits for drilling.

The corruption of the Texas political establishment goes much further. According to a Centre for Public Integrity review of financial disclosure records, 42 members of the Texas legislature or their spouses own stock or receive royalties from oil and gas companies active in the Eagle Ford area. Governor Rick Perry who approved SB1134 has revived $11.5 million in campaign contributions since 2000. The attorney General of Texas Greg Abbott has received over $4 million in contributions and has sued the EPA eighteen times for interfering in Texas affairs!

Not all members of the Texas legislature are cheerleaders for the oil and gas industry. Representative Lon Burnham openly admits that the Texas legislature is ”a wholly owned subsidiary of the oil and gas industry.”

Environmental group Earthworks carried out an investigation into air pollution in the Eagle Ford area. The report noted how Texas regulators discovered pollution so dangerous they evacuated themselves from the area. Meanwhile, the regulators took no action to warn or protect residents about the dangerous level of air pollutants.

A growing number of residents are suffering adverse health effects from the poisonous air they are breathing in. These include difficulty breathing, severe headaches, eye burning and skin rashes.

Lynn Buehring developed migraine headaches so intense they have induced temporary blindness. Meanwhile one resident reported an odor ”so bad that their lungs feel as if they will burst.”

The Earthworks report does not pull any punches. It concluded that negligent regulators and wild west fracking operators are responsible for the slow poisoning of the people of Karnes County Texas.

Evidence from state regulators and Earthworks/ShaleTest investigations indicate that ”air pollution from oil and gas development in the Eagle Ford Shale definitely threatens, and likely harms, the health of Karnes County Texas residents, including the Cerny family. Despite these findings, no action has been
taken by regulators to rein in irresponsible operations, or otherwise protect area residents.”

If fracking posed no danger to the public and was perfectly safe why is the CEO of Exxon Mobile Rex Tillerson joing a lawsuit to prevent a fracking project near his Texas home? Tillerson’s company is the biggest natural gas producer in America and fights regulatory oversight at every turn. His name is on the lawsuit that objects to a 160 foot water tower near his luxury home. The owners of the water tower would sell water to oil and gas explorers “leading to traffic with heavy trucks on FM 407, creating a noise nuisance and traffic hazards” and an ”unsafe... nuisance to children of the area.”

According to the lawsuit, the plaintiffs argue that the water tower would, ”devalue their [multi-million dollar] properties and adversely impact the rural lifestyle they sought to enjoy.” It will be interesting to see what success this group of multi-millionaires has against the fracking industry.

**Air Pollution in California**

All over America independent environmental groups are doing the job of the regulators and finding that fracking causes air pollution that poses a threat to human and animal health.

In September of 2013 the Center For Biological Diversity in California released a report that detailed its investigation into air pollution caused by the fracking industry in the LA basin. It found that oil companies had used 12 ‘air toxic’ chemicals on over 300 occasions. Air toxic chemicals are considered as extremely dangerous as they can cause cancer, harm the heart and damage the lungs and eyes.

Among the dirty dozen is Crystalline Silica a known carcinogen which has been used 117 times and is harmful to skin, eyes and other sensory organs, respiratory system, immune system and kidneys.

Another toxic chemical that has been used at least 85 times is Methanol that can damage the brain, liver and immune system.

Hydrochloric acid is a very dangerous chemical that has been used 43 times and causes severe burns upon contact with the skin while also posing a threat to eyes,
respiratory system, gastrointestinal system and liver, immune system and the cardiovascular system.

There has been a cluster of health problems reported by residents living near the Inglewood oil field due to air borne exposures to these toxic chemicals.

A major problem facing the public is that the oil and gas companies are protected by regulators who allow the companies to keep the identity of certain chemicals hidden on the grounds of "trade secrets". Oil and gas companies report certain chemicals as “lubricant,” “surfactant,” or simply “mixture.” In other words, the regulators who are supposed to be protecting the public, don’t have a clue as to what toxic poison is being used and churned out into the air.

“Every Californian deserves to know that oil companies are pumping dangerous chemicals into our air, but disclosure alone won’t protect our hearts and lungs,” said the Center’s Hollin Kretzmann. “The best way to shield ourselves from this pollution is to halt fracking, acidization and other extreme oil recovery techniques. We need Gov. Brown and state lawmakers to put public health ahead of petroleum industry profits and shut these dirty operations down.”

On 28 February Los Angeles city council voted to support a moratorium on fracking and other dangerous drilling. The motion puts a moratorium on fracking until the city decides that it does not pose a danger to the safety of residents or their drinking water.

This is a big victory for the people of Los Angeles who have faced oil and gas regulators dragging their feet on enforcing existing environmental rules. More than 200,000 petitions have been signed by Californians urging Governor Brown to ban fracking throughout the state. Californians Against Fracking have organised a state wide demonstration for 15 March in Sacramento to push Governor Brown and his administration into taking this action.

**Air Pollution: A Toxic Time Bomb**

The fracking industry is releasing a toxic time bomb into the air whose full impact may not be felt for many years to come. The indefatigable Theo Colborn, President of The Endocrine Disruption Exchange (TEDX) and Professor Emeritus of Zoology at the University of Florida, has pointed out that there are no government safety standards for many of these chemicals. Where there is a safety level for some chemicals it is based upon a male worker doing an eight hour shift
five days a week. It does not take into account low level exposure for residents exposed 24 hours a day seven days a week.

In a speech given in 2013 to a conference organised by Citizens For a Healthy Community Professor Colborn identified five sources of airborne chemicals that people can be expected to be exposed to if they happen to live near a fracking well.

Firstly, there is the raw natural gas that comes to the surface during drilling. The gas released by drilling has the following composition: 78.7% methane, volatile organic compounds (VOC’s) 17.9% and Carbon Dioxide and Nitrogen Oxide 3.3%.

Methane is a well known greenhouse gas that is toxic to humans. Professor Colborn is particularly worried by the VOC’s which are extremely toxic and have been given little attention by public health agencies. These fugitive volatile organic compounds can cause irreversible damage to the brain and central nervous system if a person is subject to prolonged exposure over time.

Secondly, there is the air pollution caused by exhaust from trucks, compressors and other equipment related to fracking. These produce nitrogen oxide and particulate matter that have the secondary effect of producing ozone which can damage lung tissue. The health effects of exhaust fumes include premature birth, low birth weight, early onset lung disease, cardiac ischemia, myocardial infarction and endocrine disruption.

Thirdly, there are the hundreds of chemicals used during the fracking process itself. The injection of these chemicals into the ground is a well known cause of water pollution across areas affected by fracking.

Fourthly, there are the chemicals released during the cleaning and maintenance of the drilling pad and equipment. Professor Theo Colborn has highlighted Methylene Chloride used to clean fracking equipment which is extremely toxic and has 12 adverse effects upon human health.

Last but by no means least there is air borne pollution caused by the waste water that is put into evaporation pits. The objective is to evaporate as much waste fluid before it is hauled off for processing. However, the evaporation process leads to the release of poisonous chemicals into the air. Professor Theo Colborn notes that there is "very little information” about the air borne pollution coming from thousands of evaporation pits which can also contaminate water supplies.
Failure To Regulate
The fracking industry in America has been subjected to light or no touch regulation. Oil and gas industry lobbyists have successfully fended off effective regulation of their industry and won exemptions from most environmental regulations: Clean Water Act, Safe Drinking Water Act, Clean Air Act, Resource Conservation and Recovery Act [RCRA], Comprehensive Environmental Response, Compensation and Liability Act [CERCLA], Emergency Planning Community Right to Know Act, and National Environmental Policy Act.

Meanwhile, Congress has agreed not to apply the Resource Conservation and Recovery Act to fracking fluids which contain hundreds of poisonous chemicals. Oil and gas companies keep from the public which chemicals are used claiming they are "trade secrets." By its own admission the EPA has been ineffective in protecting the public from this rapacious industry which has plans for massive expansion all over America and the rest of the planet.

Earthworks calls the fracking industry a "reckless endangerment" of the public's health. As government fails, the public's health suffers while oil and gas companies rake in massive profits. Never mind the permanent damage to the plant and animal kingdom by the poisoning of the environment.

One thing is clear from a modicum of research into the air borne pollution caused by the fracking industry. We cannot rely upon corporate politicians to protect the air that we breathe.

The clock is ticking. The question you have to ask yourself is: what am I going to do about it?