



Health and Environmental Threat Associated with Tire-Burning Cement Kilns

Research worldwide indicates that tire burning kilns have a serious detrimental impact on community health and the integrity of the surrounding environment.

Kiln emissions have been found to cause cancer and respiratory illness. Environmental degradation ranges from physical alteration to heavy metal, mercury, and chemical contamination.

Chemicals from the air and ground water entering the river, can accumulate to toxic quantities in wildlife and degrade the river ecosystem. As the river becomes polluted the entire ecosystem is at risk: human health is compromised, wildlife is threatened and the environment is in peril.

Below are listed 10 points that substantiate this view and can be supported by medical research, primarily commissioned by Environmental Protection Agencies (EPA).

1. **Dioxins**

Dioxins are among emissions from tire-burning kiln. The World Health Organization (WHO) has recently classified the most toxic dioxins as the worst known human carcinogens (cancer causing agents).

Dioxins also affect the immune system, fertility, and the unborn child. Because of this, the USA has reduced their safety levels for Dioxins repeatedly. The EPA concluded, "Exposure to Dioxins, even at minute levels, poses cancer risks and health concerns wider than previously suspected".



2. **Particulates**

Particulates are extremely small particles that enter the lungs directly, as they are too small to be filtered out.

In August 1995 the official monitoring of particulates at Castle Cement Plant in Clithroe, England was 70mg/m³ whereas an independent monitoring showed 490mg/m³ at a school downwind from the plant. At this school 22% of 8 - 9 year olds used inhalers, compared with an upwind school where only 3% of children used them. Castle Cement's predicted particulate emissions are 63 tons p.a. (Castle Cement's Environmental Statement).

No matter what the company says will come out of the stack, studies worldwide have shown that real emissions are considerably greater and subject to sporadic events of particularly high concentrations.

3. **Unpredictability of Plume**

No one can guarantee where the plume from the tower will land. Plumes from high stacks can travel considerable distances depending on wind conditions (direction and intensity).

Studies have shown that a plume from a tall stack drops its particulates within a minimum radius of 11 miles to 47 miles from the stack. The volume of particulates can be quite large and may actually travel considerably larger distances (100's of miles) in any direction with the wind.

This is also the reason that acid rain originating from smoke stacks in the Midwest falls to the ground in Maine. The health effects of this kiln will reach to Tallahassee and Jacksonville in small amounts.

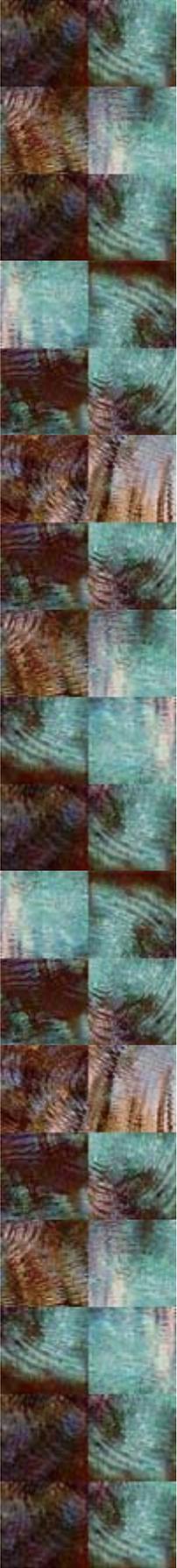
Again, company predictions of the plume emission volumes and trajectories are not realistic. Mercury and a myriad of other chemical pollutants will fall in the Ichetucknee, Santa Fe and Suwannee rivers.

Regions such as The San Francisco Bay Area and the state of Maine have already limited mercury emissions to below what will come out of this plant.

4. **Heavy Metals and Mercury**

EPA studies have documented that heavy metals do not incinerate and emissions from incinerators pose a significant health risk. The new cement kiln would be generating heavy metal emissions and most of them are toxic to humans.

Worldwide studies have revealed that mercury entering an aquatic system will accumulate in the food chain. Fish are particularly susceptible to accumulating high amounts of these toxins in their tissues, which can then accumulate in the tissues of the birds and



mammals who eat them. And ultimately, in humans who eat the contaminated fish and animals.

The kiln will release 129 pounds of mercury more than allowed by any state or agency concerned with environmental health.

5. **General Health Problems**

A study conducted on illnesses related to tire burning cement plants in Texas showed a 50% to 100% increase in coughing, phlegm, sore throats, and eye irritation in people near the incinerators.

A similar study concluded that a substantially greater incidence of larynx cancer occurred in a community within 2 km of a commercial hazardous waste incinerator.

Double blind studies reveal that people who live within five miles of a tire burning kiln in Texas are sicker, it is that simple.

6. **Lack of Research**

For the vast majority of chemicals, we have little or no long term toxicity data. Fewer than 2% of chemicals have been tested.

Tires are not made of rubber, they are complex chemical mixtures that will release thousands of chemicals in mixtures that will create new ones, the health hazards of this are unknown. As a cancer researcher I know that mixtures of chemicals in low doses are cancer causing in humans, even if the individual chemical is not.

WHO reports recent evidence that 10,000 people in England and Wales die prematurely each year from respiratory or heart conditions due to particulates. MAFF (Ministry of Agriculture, Food & Fisheries) showed dioxin levels to be 4 times higher than normal at Clitheroe Cement Kiln where prescriptions for asthma have risen 50% since they started burning chemicals and tires.

7. **Cement Kilns are prone to Upsets and Trips**

Dr Rickard (Professor of Environmental Health) states that

"cement kilns do not have the necessary reliability and safeguards to ensure complete destruction of hazardous wastes".

Castle Cement in UK has had many such 'trips' in the past, as do the kilns in Texas and the rest of the USA. By previous experience, there will be mistakes often and they result in odor, and chemical releases far above the listed values.

8. **Hidden Costs**

I urge you to consider the economic impact that heavy industry will



have on the surrounding community

- a. The visual blight and resulting drop in property values
- b. People leaving the area - there is already evidence for this
- c. The deterrent to firms who might otherwise have moved to this area
- d. Lowering of living standards and quality of life
- e. Noise and Diesel truck emissions

9. **Threat to Employment**

The area in Northern Florida between the three rivers is a pristine environmental area whose whole future depends on tourism and vacation and retirement housing. All this will stop with the kiln, we trade 80 jobs for thousands.

10. **Stress**

With the increase in noise, traffic on local roads and respiratory and other health problems, there is likely to be an increase in stress related illnesses in the local population.

Recommendations

As elected representatives you shoulder the responsibility for our health and well being. If you approve this application you are giving permission for a tire incinerator to be built in our community with the associated long-term health risks not only to the present generation but also to generations to come. I, therefore, strongly urge you to consider the following objectives and do something to stop this kiln.

Objectives

1. Stop the mining around the rivers because it will degrade the rivers. The mine should not be a hostage. Since you know the mine is a hazard, stop it without any tie to the kiln which is another issue.
2. Do not permit the plant do to health reasons. Dioxins, mercury, mixed chemicals not reported to DEP are enough of a justification. Health studies worldwide prove beyond a doubt the kiln will cause cancer and lung disease. A tire-burning kiln is not good for a community.
3. Certainly do not permit this kiln in an agricultural environmentally sensitive area. If it must exist put it in an industrial area. However, my personal view is that a tire burning cement plant is a health hazard anywhere it is built.

Adapted from [The Campaign Against the New Kiln](#), a site dedicated to stopping a tire-burning kiln in the UK.