

# Asphalt Plant Pollution

## Temporary Asphalt Plant

A temporary asphalt plant was operated in the Braeside Quarry from late September to mid-November, 2009, May 2010 until July 19, then beginning October through to early/mid December. During that time neighbours experienced adverse effects, that is, health symptoms from the emissions. Some of these were: irritation of the eyes, nose and throat, loss of appetite, dyspnea (shortness of breath), headaches and nausea. Also people's sleep patterns were disrupted to the point of exhaustion and they suffered stress and worry. (Because this issue is before the court, the asphalt plant is 'alleged to have caused adverse effects').

Asphalt is made by mixing hot aggregate, (crushed rock), with liquid asphaltic cement. Huge quantities of fuel are required to get everything hot enough to combine.

<http://www.lanl.gov/environment/air/docs/prog.>

## Living with an Asphalt Plant:

- It is extremely loud; some said it was like living on the tarmac of the Ottawa International Airport;
- The noise was continuous; the only way not to hear it was to drown it out by turning up music to unacceptable levels;
- There was noise all night, although less loud;
- Noise continued even all Saturday and Sunday;
- A noxious smell was detected, sometimes even in every room of the house;
- If one went outside, even when the smell wasn't strong, the chemicals in the air caused the above symptoms, such as not being able to breathe, (dyspnea);
- Depending on the weather conditions such as wind direction, the effects could be more strongly felt.

## What Caused These Effects:

If you smell a nasty odour of asphalt you are breathing noxious chemicals.

- 'Hydrogen sulphide can result in neurological and respiratory effects such as lack of co-ordination, loss of smell, nasal symptoms, sore throat, cough, dyspnea (shortness of breath due to toxic airway damage), and eye irritations.' [www.BREDL.org](http://www.BREDL.org).
- Benzene, chromium, formaldehyde, PAHs, (polycyclic aromatic hydrocarbons, known carcinogens), cadmium and arsenic may all be emitted;
- All of these chemicals may be released into the environment when asphalt is produced.

## General Comments:

- It is universally agreed that exposure to chemicals in asphalt causes cancer in animals;
- Studies on humans are inconclusive, need long term studies, just as now everyone agrees tobacco causes cancer;

- There is a growing list of scientific papers that conclude exposure to hot asphalt emissions can significantly increase the incidence of cancers above background;
- All agree that asphalt fumes contain strongly carcinogenic materials (PAHs); disagreement is over level of exposure that causes a public health risk. No such thing as a ‘safe’ level of benzene’, (Kunda Park Neighbours).
- \*\*\*As many as 25 children live close to this temporary asphalt plant.

### Key Issues:

- Temperature inversion – cold air can become trapped below a layer of warmer air trapping pollutants in the air around us to levels 10s, 100s, even 1000s of times above normal;
- Fugitive emissions – those chemicals emitted from trucks and moving asphalt – not measured or calculated, but very important, in addition to emissions from the plant itself;
- Asphalt cutting, (mixing), solvents – benzene, dioxane, or toluene – all extremely dangerous to health;
- Amounts of pollutants estimated by computers, mathematical formulas, not actual testing;
- Asphalt plants are fire-prone, emitting vast amounts of toxic pollutants;
- Chemicals emitted into the air will be dissolved by rain and run into our aquifers, wetlands, creeks and Ottawa River, contaminating the water;
- Huge quantities of fuel are needed to make asphalt; a spill in this quarry would pollute the groundwater forever;
- **One litre of gasoline contaminates one million litres of water!**

### Some Useful Websites:

<http://www.fact-mb.org>

<http://www.BREDL.org>

\*\* <http://sites.google.com/site/kundaparkneighbours/asphalt-plants-benzene-and-cancer>

<http://www.lanl.gov/environment/air/docs/prog>

<http://www.cancaver.ca/conserv/karst.htm>

<http://stopthequarry.ca/StMarys/StMarysCement.php>