



## City of Richmond's Internal Idle Reduction Program



Number of Employees: Approximately 1,500

Number of Motorised Vehicles and Equipment  
Approximately: 2,000

Inception of Idle Free Program: September 2004

Fuels Savings Over One Year: \$117,000.00

Green House Gases Not Emitted: Approximately  
220 metric tonnes

### Getting Started

The City of Richmond is breathing easier. While most businesses are concerned with how reducing idling affects their bottom-line, the City's approach to its internal Idle Free program is built on improving air quality. "We have a budget for fuel, but we don't have a budget for the atmosphere," says Gerry Hay, Fleet Training Officer and the person responsible for the Idle Free program.

An internal recommendation to develop a fuel management program was the spark that started the Idle Free Program. Each department manager was approached and persuaded of the value of reduced emissions before the program was rolled out in September 2004. The managers immediately recognised the common sense of saving on maintenance and fuel costs but were also convinced by the startling environmental health impacts.

"I asked them to guess what area has the highest pollution levels. Often times, they would say places like the mall. When I explained to them that according to the Lung Association it's actually schools they were amazed," says Gerry. Many of the managers are parents and grandparents, who easily made the connection that their child is potentially at risk from idling. Children are especially vulnerable to air pollution because they breathe more quickly than adults and inhale more air per kilogram of body weight. Although idling alone does not cause deaths and illnesses, it does contribute to health problems. Illustrating this connection made it easier to engage the department managers and employees and to get a high level of participation in the program.

### Results

To keep the City of Richmond running, the city has approximately 500 fleet vehicles. All-weather idle-free stickers were placed both inside and outside of every city vehicle in the Works Yard. In addition to the stickers, there is an idle free message on a board at the entrance and exits to the Works Yard. 36 steel signs were also placed in highly visible areas such as doors to dispersals, entrance doors to work areas, which again remind employees to turn off their engines to avoid unnecessary idling.



The City's Idle Free program has paid off. After only four months of implementing the plan, the City of Richmond saved 33,000 litres of unleaded gasoline and 13,000 litres of diesel. An up-to-date summary of recent data indicates that since the program's inception 114,000 litres of unleaded fuel, clear diesel and compressed natural gas have been saved throughout the fleet, which is equal to \$117,000 (1, 2). More importantly, approximately 220 metric tonnes of green house gases were not put into the atmosphere.



### Barriers & Solutions

With all projects there are barriers that must be addressed in order for the program to be successful. At the beginning of the program, Richmond's vehicle arrowboards, which are the directional flashing lights powered by the vehicles' diesel and gas engines, necessitated 5-6 hours or more of daily idling.

Therefore, a pilot project was planned to install low energy LED arrowboards and flashing beacon lights in six units. The pilot project was a success. Allowing the engine to be shut off while operating, these lights also last longer and are easier to install.

An auxiliary battery is added and a horn will sound when the energy level gets low. When the horn sounds, the driver restarts the vehicle to recharge the battery. This innovative approach is expected to substantially decrease the idling time of six arrowboards by 720 hours, a saving of approximately \$1,600 a month (3) and a substantial reduction of green house gas emissions.



### Dedication & Understanding

The City of Richmond understood that there was an environmental and economic advantage to this program but its ultimate success is a credit to the enthusiasm and dedication of its employees. As Gerry puts it, "you can have the best plan in the world, but you need to get people actively participating and coming up with ideas."

Now, approximately 95 percent of City of Richmond employees who use the fleet equipment are aware of the program and do not let their vehicles idle. Once individuals adopt this behaviour, they become invested in being idle free and educate other employees to do the same. These simple lessons will also have far reaching effects on personal idling behaviour. The City of Richmond reaps the benefits of saving money on fuel and maintenance costs and the entire community benefits from reduced idling.

1 Calculated diesel cost at \$1.10 per litre,

2 Calculated unleaded gasoline cost at \$.96 per litre,

3 Diesel engines use between 1 and 4 litres per hour while idling. This calculation is the average between the numbers.

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