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Tool Kit Item #4

MODEL COMPANIES SHOW HOW POLLUTION PREVENTION WORKS

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Pollution Prevention Pays

The Environmental Reporting and Disclosure Bylaw is meant to encourage companies to reduce hazardous air pollutants. The first step towards pollution prevention is measuring which substances are used and released in a facility because companies cannot manage what they do not measure. Some companies are out in front because they have already lowered the amounts of chemicals they discharge to the sewers or release to the air.

Many Toronto companies changed the chemicals they use or the way they use them because of the City's Sewer Use Bylaw, which sets strict standards for discharging pollutants to the sewers. It also requires companies using the sewers to develop pollution prevention plans. This Bylaw has had a big impact on reducing the pollutants going to Toronto's sewage treatment plants and, from there, being discharged into Lake Ontario, the source of our drinking water.

The Environmental Reporting and Disclosure Bylaw does not require pollution prevention plans. However, reporting means that companies must look at the volume of chemicals they are buying, using, releasing and possibly wasting in their facilities. Companies that report to ChemTRAC can voluntarily include an Environmental Statement that publicly shares what they are doing to reduce pollution and improve their practices.

It's like a bank account – adding up what comes in, what's been paid out and what's left over. As a result of this accounting, many companies understand better how chemicals are managed in their facilities and how they can reduce their losses or how they can replace hazardous chemicals with less toxic alternatives. This can save money, improve working conditions and the air inside a facility, and potentially cut out the red tape that comes with reporting chemicals. Just cutting the costs of trucking away and disposing of hazardous waste can save a company thousands of dollars. A cost/benefit analysis done by the state of New Jersey found that for every $1 spent on pollution prevention planning, companies saw a net savings of $5 to $8.

HERE ARE SOME STERLING EXAMPLES OF LEADING TORONTO COMPANIES THAT HAVE DONE THEIR PART TO PREVENT POLLUTION.

Although many companies have saved money by conserving water and energy, the companies we have chosen to highlight have also benefited from reducing their use of hazardous chemicals!

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EXAMPLE #1
C.J. GRAPHICS

Printing and publishing companies generally use a variety of developers, inks and solvents that release volatile organic compounds (VOCs), the main priority substance of concern in the printing industry. C.J. Graphics, a commercial lithographic printing company, chose to use low VOC vegetable-based inks in its printing instead of regular inks, a choice that minimized its releases of volatile organic compounds (VOCs) from the printing process. The company also reduced VOCs by 3 tonnes per year in their pressroom by installing a distillation solvent recycling system that can recover and reuse solvents used for blanket and roller washing. As well as C.J. Graphics, a number of Toronto printers and publishing companies-- Bowne of Canada, Informco, and Thistle Printing -- have all been recognized for their achievements in preventing pollution.

"C.J. Graphics Inc. Group of Companies has been, and will continue to be, an avid supporter of the Toronto ChemTRAC initiative... We have drastically reduced our dependence on toxic chemicals and have replaced them with ecologically sound alternatives. We are consistently below the parameters required for any of the monitored substances."

- Jay Mandarino, President, G.J. Graphic Inc. Printers and Lithographers

EXAMPLE #2
DECARO MANUFACTURING

In the manufacturing sector, many priority pollutants are used. DeCaro Manufacturing, a smaller Toronto company, successfully reduced its use and emissions of a number of hazardous chemicals. DeCaro is a metal plating facility that manufactures fireplaces, airport weigh scales and other metal products. The company used trichloroethylene in its degreasing process and for cleaning. It reduced its use of trichloroethylene by 2400 kilograms per year by using a caustic bath instead of a solvent degreaser and by switching from trichloroethylene to non-chlorinated or water-based cleaners. DeCaro also reduced toluene and xylene, which are also hazardous. This was done through replacing their spray guns with high pressure low volume spray guns, by replacing spray paint with a drip tray process, and by using water-based paints.

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EXAMPLE #3
CALSTONE INC.

Calstone Inc., a Scarborough-based designer and manufacturer of quality metal furniture, reduced its use of hazardous chemicals by 60% by installing a vapour spray degreaser to purify its chemicals for reuse in the degreasing of metal components, and by using a soap-based solvent in the vapour spray degreaser. Some of the materials used in the manufacture of finished furniture may release VOCs into the air of our homes or businesses. Calstone's furniture has been tested and met strict standards for VOC and aldehyde emissions. Calstone is also an example of a City of Toronto facility that has made public all the chemicals that it uses.

"Calstone has been a supporter of the ChemTRAC program and Toronto's toxic emissions reduction program from the very beginning. We always have been open about the chemicals we use in our manufacturing facility as we at Calstone believe that it is our duty as manufacturers to minimize the chemical output of our plant. We were using trichloroethylene in our Vapour Degreaser but have switched to a more environmentally friendly soap based solvent, TechKleen NPB. Techkleen NPB has a much lower atmospheric lifetime than other harmful chemicals and almost zero global warming potential. Calstone will be switching to a water-based paint in the near future to further rid the plant of harmful toxins. Calstone congratulates the City of Toronto on the first year of their program and encourages other manufacturers to learn about the chemicals used in their production and work with ChemTRAC to reduce or eliminate them".

- Jim Ecclestone, President and Owner of Calstone, a family owned furniture manufacturer in Scarborough.

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EXAMPLE #4
TEKNION CORPORATION

Teknion Corporation, an international designer, manufacturer and marketer of office furniture based in Toronto, has also made significant reductions in hazardous chemicals through the development of a water-based painting process that eliminates dry epoxy paint and the use of energy-intensive ovens. Another large office furniture manufacturer, Steelcase Canada located in Markham, Ontario, eliminated VOC emissions from its paint facility by switching from spray painting onto metal surfaces to 100% solvent-free powder paint.

EXAMPLE #5
BRIMAC ANODIZING LIMITED

Brimac Anodizing, in Etobicoke, specializes in anodizing aluminum parts for industrial use. Part of the anodizing process used a black dye that contained chromium. Brimac was able to eliminate the use of chromium through the replacement of this dye with an alternative chromium-free product.

EXAMPLE # 6
CANADIAN AUTO COLLISION

Canadian Auto Collision, located in Brantford, stands out as an example of an auto repair shop that has made many of the improvements and changes recommended by the industry association. Automotive repair businesses, many of which are small, release VOCs from paints, from solvents used in cleaning parts and metals and particulate air pollution released during sanding and painting. Canadian Auto Collision has upgraded to high pressure low volume spray guns that make painting more efficient and reduce the VOCs going into the air. The use of water-based paints to repaint cars has also resulted in significant reductions of VOCs. A centralized dust extraction system, installed by the company, has reduced dust and particulate matter by 95%. Overall, Canadian Auto Collision has been able to cut their air emissions by 55%. In order to help small auto repair shops achieve this standard, the Collision Industry Information Assistance has provided information and a website (**www.autobodyhelp.ca**). The website identifies pollution prevention activities that can substantially reduce their costs and liabilities.

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EXAMPLE #7
DRY CLEANERS

Dry cleaning of clothing is usually done with tetrachloroethylene, also known as perchloroethylene or simply perc. Although more dry cleaners use closed systems, tetrachloroethylene may still contaminate the air. Concerns about both health and environmental effects of tetrachloroethylene have led to the development of a number of alternatives. These include wet cleaning, carbon dioxide cleaning and Green Earth, a silicone-based solvent developed by General Electric. A small number of dry cleaners scattered throughout the City – such as Gibson's Cleaners, Parkers Cleaners, Dove Cleaners, Eco Cleaners, Laird Cleaners and Suedemaster Leather Cleaner – are using these alternative methods.

"ChemTRAC not only empowers consumers to make safer, healthier choices but it also encourages businesses to do better. As a business that offers toxic free dry cleaning, being green is not only the right decision, it's the logical business decision. As consumer awareness grows of the impact of the goods and services they buy on the environment and their health, being green is no longer a lifestyle choice but has become a choice for life. As a consumer and resident of this great city, I am proud of our city for giving me the choice and knowledge to make healthier, greener decisions for me and my family."

- Tim Yoo, Eco Cleaners

And the Rest of the Green Leaders are...

A fuller list of companies in the Toronto area that have made significant progress in eliminating or reducing their use of hazardous chemicals are highlighted on a number of resourceful websites. Two direct hands-on programs for business in the Toronto area are profiled below:

1) THE BLOOM CENTRE FOR SUSTAINABILITY
http://techassist.bloomcentre.com

This centre helps small and medium sized manufacturers in the Greater Toronto region with advice and technical assistance on pollution prevention, toxics reduction and energy and water use. Many companies have benefited from their on-site assessments. Not only have they reduced their hazardous wastes, VOCs and toxic chemical use, but they have also saved money in both the long and the short run. The average payback period for investment in pollution prevention has turned out to be less than one year. Case studies, workshops and financial incentives can be found on their website or phone them at 905-822-4133.

2) PARTNERS IN PROJECT GREEN

www.partnersinprojectgreen.com

This initiative is a collaborative between the Greater Toronto Airports Authority and the Toronto Region Conservation Authority. It helps businesses become more sustainable with programs to become more energy efficient, reduce waste, solve transportation problems and collaborate on green purchasing. They also offer free ChemTRAC site visits in conjunction with Toronto Public Health. For more details and to register, email **chemtracvisit@partnersinprojectgreen.com**, visit their website or call 416-661-6600 ex.5595.

Here are some more great online resources that profile green leaders:

- ChemTRAC eLearning Course segment "*Businesses Share Their Stories - Video Case Studies*" - **http://www.toronto.ca/health/chemtrac/elearning/pollutionprevention/page401.html**
- Toronto Region Sustainability Program - **www.trsp.ca/case_studies.htm**
- Environment Canada's Pollution Prevention Successes – **www.ec.gc.ca/p2**

BUSINESS ASSISTANCE

Under the ChemTRAC program, Toronto Public Health has developed pollution prevention information and training sessions for companies. Details are available online: **www.toronto.ca/health/chemtrac/business_resources.htm** Different types of businesses – auto body shops, upholstered furniture manufacturers, commercial laundries, medical labs and many more – can all find detailed information on the ChemTRAC website. By consulting this information, you can find out how to assess the chemicals used in your processes and how to reduce them through good management practices.

Many business associations actively try to help their members reduce their toxics. Some have created how-to guides to give their members solid advice. An example is the Collision Industry Information Assistance that helps auto body repair shops with their site: **www.autobodyhelp.ca**

The City of Toronto has made **Live Green Toronto ChemTRAC Toxics Reduction Grants** available to business associations to develop additional support for greening their practices. Support could include training, education, pilot programs and development of community partnerships. The Toronto Association of Business Improvement Areas (TABIA), through its environmental program greenTbiz, received a ChemTRAC grant to help the small business sector reduce chemicals.
Learn more at **http://greentbiz.org/programs/chemtrac/**.

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Do your own research: Find out more about pollution prevention...

- ChemTRAC Links Page: **http://www.toronto.ca/health/chemtrac/links.htm**
- Environment Canada's Pollution Prevention Planning Handbook: **www.ec.gc.ca/NOPP/DOCS/P2P/hbook/En/index.cfm**
- The Canadian Centre for Pollution Prevention's Environmental Accounting Online Training Tool: **www.learning.c2p2online.com/**
- Canadian Pollution Prevention Information Clearinghouse (CPPIC): **www.ec.gc.ca/cppic/en/index.cfm**
- The Massachusetts Toxics Use Reduction Institute: **www.turi.org**
- Environmental Sustainability Resource Centre: **wrrc.p2pays.org/indsector.asp**
- New York State's Pollution Prevention Program: **www.nysp2i.rit.edu/priority_sector_projects.html**
- Clean Production Action's GreenScreen for Safer Chemicals (U.S.A): **http://www.cleanproduction.org/Greenscreen.php**
- The Quick Chemical Assessment Tool (QCAT) (U.S.A): **http://www.ecy.wa.gov/programs/hwtr/ChemAlternatives/QCAT.html**