



Sustainable Air Leak Management Project: Saving Energy and Dollars

In 2006, the Ontario Mining Association (OMA) launched a pilot project to tackle compressed air leaks.

OMA had financial support from the Ontario Power Authority (OPA)'s Conservation Fund as well as cash and in-kind contributions from the three mining companies participating in the project: Hemlo Mines, FNX Mining and Vale Inco

Compressed air systems are inherently inefficient and frequently leak in mining operations – wasting electrical power, reducing compressor efficiency, lowering productivity and often leading to additional equipment being purchased to keep operations functioning.

The central goal of the OMA pilot project was to create and test a sustainable air leak control program that could eventually be adopted industry-wide.

Elements of the pilot program included identifying and tagging air leaks, tracking compressed air system performance, assessing and improving the efficacy of repairing leaks, implementing measurement reporting systems to ensure sustained improvement and increasing employee awareness and training in leak detection and repair.

Results of the pilot program were impressive.

At a Glance:

Compressed air costs the Ontario mining industry more than \$30 million/yr.

Hundreds of thousands of dollars are wasted through leaks.

OMA pilot project:

- Raised awareness about costs and fixing leaks
- Identified \$100,000s energy savings at pilot sites
- Improved efficiency of existing equipment, reducing the need to buy new equipment
- Improved productivity

Testimonials:

“By implementing a leak tag program, we saved approximately \$200,000 in 2007.” Hemlo Mines

“The ability to reduce compressed air leaks provided continuous operation of air tools and lower electrical consumption used by compressors.” FNX Mining

“The pilot gave us the opportunity to work with Victaulic on a gasket redesign. These gaskets will save hundreds of thousands of dollars.” Vale Inco

- Fixing just the large and medium leaks at 2 sites saved the equivalent of about 225 kW of electricity, for energy cost savings of about \$100,000 a year.
- One site was able to cancel the purchase of an expensive new compressor because it increased production of a major air-driven machine so significantly.
- Leak repairs at another site allowed it to shut down a 200 horsepower (150 kW) compressor, while also increasing productivity and reducing complaints from production workers about low pressure in compressed air lines.
- Following the end of the pilot study, but using the new techniques and equipment, one site found a single leak that was costing them \$35,000. Without the \$500 necessary repair, it would have cost \$130,000 on an annual basis.

Spreading this across the province's mining industry, the savings could make a major contribution to achieving Ontario's electricity conservation goals.

For a report on the pilot project prepared by LeapFrog Energy Technologies Inc. go to <http://www.oma.on.ca/publications/compressedairstudy.asp>

You can
make a
difference.
Fix Leaks.
Cut Costs.
Save Energy.

Contact:
Cheryl Brownlee - Ontario Mining Association
tel: 416-364-9301 email: cbrownlee@oma.on.ca web: www.oma.on.ca

