



Innovation and Leadership



Thanks to all who provided photos for the last poster in the EARTH 1st series. It certainly provides a visual reminder as to why we embrace the EARTH 1st principles - **Tomorrow's Generations.**

Efficiently Operate ■ Acknowledge Our Part ■ Reduce Our Impact ■ Take Time to Plan ■ Higher Environmental Performance ■ 1st Innovation and Leadership

Many Thanks Go to Ron Barnett of Woodington Systems

Ron Barnett of Woodington Systems may be camera shy but he is definitely not shy of taking action to solve problems. On October 11, Ron was driving his truck up Taylor Road and noticed a discharge of leachate had started from one of the manholes along Taylor Road. As a result of Ron's quick response, an incident that could have had a significant effect was under control in short order.

Niagara Waste Systems landfill generates leachate from precipitation that falls on the landfill and makes its way through the waste that has been deposited. The water that has been dirtied by the waste is collected in perforated pipes which lie on the surface of the clay liner. The dirty water, known as leachate, is then directed to a lagoon on site. The leachate is then discharged to the sewage system via a dedicated leachate pipe that is buried in the road allowance on Taylor Road. Just past Niagara College, the leachate joins the Niagara on the Lake sewage system for ultimate treatment at the Port Weller Pollution Control Plant.



On October 11, there was a malfunction in the system that caused leachate to discharge from one of the manholes. Ron's observant eyes and quick call to the office allowed the pumps at the landfill to be remotely shutoff by Galbraith Electric.

We also have to thank Galbraith Electric for their fast thinking. Not only did they shut-off the pumps, they sent workers down to hand dig the ditch to contain the leachate that had discharged. This provided time for Niagara Waste Systems to respond to the issue with the help of Woodington Systems, FCE Services and Walter and Sons Excavating.

Since the incident, there has been lots of brainstorming on how to prevent such a discharge again. The procedures for pipe cleaning are being reviewed to see if there is a way to clean them more efficiently. We are also looking at the feasibility of high level alarms and whether engineering changes should be made to the system.

Our response to this incident is a great example of how well Walker companies work together and how dependable, dedicated and supportive our contractors are.



Norjohn Contracting is taking time to plan for efficiency

Norjohn Contracting has been really looking at how they operate. They discovered places where they are creating waste. You know using resources but creating no value. In the past they would float equipment into their separate job locations without looking at the big picture. This wasted fuel and time, created unnecessary emissions and in the end cost money.

They have now become smarter. They have redesigned their operations for the environment. They now consider the needs of all their jobs and determine the most efficient way of floating in equipment. They double up on float moves to be able to drop off equipment along the way instead of making separate float moves. They save time, fuel and reduce emissions and costs.

They are able to maximize the capacity of float moves to ensure 100% utilization. They are also scheduling field operations to minimize the distance and number of equipment moves necessary on a daily or long term job.

Rather than taking numerous runs for supplies, a more coordinated supply pick-up has been developed. Employees pick up what is needed when returning to work from lunch.

Norjohn has embraced the principle of reducing our impact by using bushes and a tree that an employee no longer needed at home for landscaping of the office. Rather than ending up as compost, the bushes and trees are providing oxygen as well as beauty outside the Brown Road location.

Norjohn has implemented a cardboard recycling program in the shop and a paper recycling program in the offices.

Recyclable materials are being brought back to Brown Rd. so that Norjohn can be part of a closed loop resource recycling program. Recycled Asphalt Product (RAP) from jobs has been brought back to the site for use in their parking lot construction. Excess top soil from jobs is brought back to be used in the field for re-installments and sodding.

Catch basins are being recovered and stored for reuse by Norjohn or sold to IMOS for their use.

Congratulations to Norjohn Contracting for embracing the EARTH 1st principles and working diligently to meet your environmental goals.



Measuring Environmental Performance

Every year since 2003, the Environmental Performance Department has been doing Environmental Performance Reviews of each company. The performance reviews measure each company's successes in meeting the EARTH 1st principles. We look at what steps are being taken to support the environment as well as whether the facility is in compliance with environmental legislation. The reviews give the companies and the Environmental Performance Department a measurement of what the company is doing well and where to focus their attention to improve their performance.

The system of measurement used also motivates and encourages companies to be 1st in innovation and leadership in the industry. It was developed to have each facility to look beyond the obvious to achieve higher environmental performance.



This year, the Environmental Performance Department challenged each company not only to improve over their previous performance, but also to achieve a score of 80% or more. Every company improved their performance over last year and most met our 80% challenge.

Thanks for your great work and congratulations. The companies that met that goal or went above 80% will receive a token of our appreciation. Please enjoy this gift with your family!

Improving waste diversion at Norjohn Transfer

Norjohn is increasing total diversions rates of recyclable materials from landfill by investigating ways to add new materials. Diversion volumes are up 20% overall at the Transfer Station. Norjohn has made a significant effort to divert organic waste to the IMS compost facility. Painted and treated wood that is not acceptable for compost is used as road building in the East Landfill. Using woodchips as road base conserves landfill space by re-using a material that would have been landfill anyway and eliminates the need to use aggregate resources on the road. Aggregate is a non-renewable resource that costs money. Woodchips are a renewable resource that is already a waste. An added advantage to the woodchips is that it provides vehicles better traction in wet weather. The need to tow trucks into and out of the tipping face is reduced. This means less emissions, less wasted fuel as well as a much more efficient operation. In the first 3 quarters of 2006 Norjohn has diverted 258.22 tonnes of metal, 145.42 tonnes of cardboard, 2.67 tonnes of bottles and cans, 30.41 tonnes of tires, 1,662.58 tonnes of wood, and 273.21 tonnes of leaf and yard waste. That is a total of 2,372.51 tonnes of material that would have just been wasted. Great work Norjohn!

Renewable earth friendly cleaning

Norjohn Emulsion is in the process of purchasing an Asphalt Cleaner made from 100% soybeans. Franmar Chemical Inc., the company that Norjohn will purchase BEAN•e•doo® from, manufactures industrial cleaners, degreasers, solvents and many more products. Their products are used throughout the world by large companies who want to reduce hazardous waste, comply with environmental regulations and improve worker health and safety.

All of their products are 'clean air solvents' and contain no ozone depleting chemical or hazardous air pollutants. The BEAN•e•doo® Asphalt Cleaner that Norjohn is purchasing is 100% biodegradable and non-petroleum based. This cleaner makes the removal of high-oil type asphalt very easy. BEAN•e•doo® also removes modified asphalts, polymers, top coating, sealers, and tac-coatings. If you apply BEAN•e•doo® before hand, it will keep the asphalt from bonding to metallic surface making cleaning easier.

This product is environmentally friendly; it is made from a renewable resource and also reduces the amount of time spent on cleaning. Norjohn is keeping EARTH 1st in mind when purchasing products. Have you made an environmental choice in your purchasing habits? Let us know so we can share it with others.

Efficiently Operating at Ridgemount Quarry

Ridgemount Quarry has made some significant changes to efficiently operate. They have installed windows in the shop that open. Ridgemount can now use nature rather than using air conditioning to cool them in the summer by opening windows.



Ridgemount also installed programmable thermostats. The thermostat turns on to 21°c a half an hour before staff arrive and turns down to 15°c at night when the staff leave. This is saving energy, electricity and costs. Making small changes can make a big difference.



Regional source separated organics—almost paperless

IMS has come up with another way to save paper!

Prior to submitting their proposal for the management of Source Separated Organics to the Region IMS asked an EARTH 1st question. Can we provide the information to the Region in a format that saves paper and makes it easier for the Region to find and share information. They contacted the Region and asked if they could submit their proposal electronically. The Region said rather than receiving the required 9 paper copies they would accept one paper copy and 8 CDs.

With the help of Leticia Koole, a very user friendly electronic document was created. Leticia created a webpage that allows the user to easily navigate their way through the document to find the information they are looking for. Not only did IMS use less resources creating only one 2" binder rather than 9 of them. They also came up with a smarter more efficient way to present their proposal.

Very Koole IMS!!!!





It's a Way of Life™

join in

We have now completed our EARTH 1st version 2 training. Each employee within Walkers completed their EARTH 1st refresher course. We started in the spring with start-up meetings and finished up this fall. I hope everyone had as much fun as we did.

We learned that everything that we have in life is a result of imagination mixed with the resources of the earth. We imagined a world where everyone acknowledged they were part of the environment and designed their lives, businesses and organizations in a way that supports the environment. We learned that innovation is about changing the rules of the game to leave the competition behind.

From playing EARTH 1st It's a Way of Life™, we learned that through our operations we are faced with a number of environmental challenges. If we take the opportunities that are provided to us we can protect ourselves from the risk, preventing loss and at times making money from the opportunities. The opportunities come in the form of environmental training, re-designing our operations to be more efficient and proper planning. In other words, applying the EARTH 1st principles provide us great opportunities.

Remember as Mahatma Gandhi said, "The difference between what we do and what we are capable of doing would suffice to solve most of the world's problems." So imagine a company where we all acknowledge what we are capable of doing and work to that capability. We could transform our world.

Now that is a great opportunity!

Lighting up Christmas not your electrical bill

With Christmas around the corner it is time to start decorating; putting up your tree, decorating the house with lights and simply getting ready for Christmas.

What types of lights will you put up?

Traditional lights, mini lights or LED Lights?

When you purchase your lights think about electricity, energy use and cost. There are many benefits of using LED lights versus traditional lights or mini lights.

Some of these benefits include:

- LED lights use 95% less energy than traditional larger bulbs
- LED lights last 100,000 hours when used indoors
- LED lights use .04 watts per bulb which is 10 times less than mini bulbs and 100 times less than traditional bulbs
- the lights are encased in thick plastic not glass so it is less likely to break
- if one bulb burns out, the rest of the strand will stay lit.

If you want to look at it from a cost saving perspective, the cost to light 500 traditional lights for over 30 days is \$18. To light the same amount of LED bulbs for the same period of time costs \$0.19. Can you imagine the savings and how much more you would be efficiently operating! Before you buy your lights this season think about the environment and how you can do your part!



Environmentally friendly gift wrapping

Christmas raises some questions for the environment. How do I act in a way that supports the environment when wrapping my gifts? How do I make my gifts look attractive while doing this? Here are some different ideas to be environmental conscious when getting ready to wrap your gifts:

- buy gift bags from the dollar store and reuse the ones that you receive
- save your wrappings from the gifts you receive and reuse them next year
- use gift baskets, no one throws out baskets they always re-use them
- make your own wrapping from the funnies in the newspaper, magazine or use butcher paper & make your own designs on the paper
- use material gift bags, they will always be re-used by others
- buy gift wrapping from the Salvation Army or Goodwill
- try wrapping presents using tea towels
- try HEMP wrapping. Hemp wrapping made out of 100% vegetable inks. The wrapping along with the packaging is 100% biodegradable. www.eartheasy.com and click on "Give".



Waste exchanges

This fall Head Office started replacing the roof of the building. All the material coming off the roof could have ended up in the landfill. But that did not happen. The compost and drop off site is using the stone as decorative landscape stone.

During the environmental performance review of the Head Office Complex a number of partially full paint containers were found. Rather than disposing of the paint an email was sent out to see if anyone needed the excess paint and guess what happened! There was more demand than supply. The paint that was waste for head office became a food for Norjohn Emulsion and Georgian Aggregates.

Do you have a waste that could be food for another operation? Why not send out an email and see if anyone is interested in what you have. You may be surprised. Communication is key to supporting the environment.



Head office is continually working towards zero waste. Patti Cudney and Bryon Dingman replaced the old paper towel dispensers with a Canon Hygiene dispenser. This new dispenser gives a half size piece of paper towel, significantly reducing the amount of paper we use and the amount of waste we send for composting.

All of the showers at the head office complex now have Gojo dispensers. These dispensers have a head to toe body wash in them that is foam. The foam dispensers are saving us money and reducing the resources we use. With a foam dispenser you get up to 5 times more showers between refills. People use 56% less foam than liquid soap. The foam rinses clean down the drain which leaves the shower cleaner with no soap residue. That means it is easier to clean.

Head Office and Woodington have also had all of the toilet paper dispensers replaced. Our new dispensers are saving an exceptional amount of paper. The new toilet paper is delivered with less packaging. There is no cardboard roll in the centre to waste and the rolls come in a box without individual wrapping. A picture is worth a thousand words.

Check out the amount of waste we used to create.



Now compare it to what we create now.



We have come along way, thanks to the great ideas of employees like Patti and Bryon!



IGRS has been working diligently at completing their goals while embracing the EARTH 1st principles. IGRS has created an asset management tool for their facilities.

This tool consists of a spreadsheet where all functions of facilities consumption, efficiencies and production are measured, tracked, documented and analyzed. The purpose of the tools is not only to streamline access to information pertaining to a plant's environmental performance but to also allow a comprehensive analysis of the month-to-month operations and identify areas where improvement can be gained.

An example of some of the metrics used in this tool are:

- Electrical Energy consumption (per unit production)
- GHG's generated (per unit production)
- Total waste (per unit production)
- GHG's offset, etc.



IGRS has also worked on reducing the amount of paper they consume. They notified their clients of the EARTH 1st program and asked if they would be willing to accept digital monthly invoices rather than hardcopies. The Region of Peel has agreed to a digital invoice format. Also, carbon copies are circulated digitally rather than in paper form.

Looking to Mother Nature for lawn care



We are looking at ways to reduce our fertilizer use at head office while maintaining the health of our lawns. This summer the IMS Compost Facility produced a 1/4" screened compost product. It is fine

enough to spread on the lawn as a top-dressing. Although not equivalent to fertilizer because of its low levels of nitrogen, phosphorus and potash, it will still provide benefits. We plan to top-dress the lawn this fall. The fine compost will help with moisture retention and provide low levels of nitrogen. We will monitor its affect in the spring and then make a decision about the level of fertilizing to apply in 2007.

Generating ideas for the earth

On October 12, 2006, the Environmental Performance Department invited supervisors from each division to sit at a roundtable to discuss how we can make EARTH 1st better. 25 of us gathered to share ideas on goal setting, contractor assessments, Environmental Performance Reviews and EARTH 1st. The meeting was a success.

What we heard from the group was:

- the environmental performance department needs more exposure out in the field
- we should assess contractors based on their environmental risk
- there needs to be more resources to assist operations to deliver corporate programs
- it is difficult to obtain the efficiency measures required in the environmental performance reviews.

As a result of the input that we received the Environmental Performance Department has set its 2007 EARTH 1st goals:

- to visit one site a month for a monthly talk and to go along on a monthly EARTH 1st inspections
- revise the assessment and training of contractors to establish a 3 tiered risk based approach
- create a means of coordinating corporate services programs so resources are not stressed.

Thank you to all of the participants for all of your great ideas and feedback. If you have ideas for improving the EARTH 1st program please let us know. You can call us, email us or catch up to us when we come to your site.

Using less resource

Val Wiebe, of Walker Environmental Services, now sends monthly reports via email rather than printing them. There are 35 reports a month that are no longer printed. Daily reports are now being sent via email. That is a lot of paper being saved. Val is helping us to more efficiently operate, reducing our use of resources and energy.



I know Wanda was wondering...



The Niagara Biosolids plant is going to install a timer on the exterior lights of the new storage building. They will be able to control the amount of time the lights stay on after they are activated by the photocell (when it's dark). This will reduce our electrical use at the site and save some money too!



Introduction of co-op student

The Environmental Performance Department is pleased to announce the newest member of our team, Katherine Siren. Katherine will be with us as a co-op student from January until September 2007. Her primary role will be to assist with Environmental Aspect and Impact assessments. An environmental aspect is how we interact with the environment. An environmental impact is the consequences of the interaction; they can be positive or negative.

Katherine is a student at the University of Waterloo she is working toward her bachelors of science in environmental studies. In her spare time, you can find Katherine camping, hiking, canoeing, skiing, playing soccer and she also enjoys photography and travel.



If there is something you, your company or your co-worker is doing that meets the EARTH 1st principles please let us know. You could also write an article for the newsletter to share your steps towards Higher Environmental Performance!

www.EARTH1st.ca



Contact Alison 905.680.3769 or Shawn 905.680.3757 Environmental Performance Department, with your ideas, comments, thoughts and solutions.