

Lafarge Bath Plant

concrete

connection

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Message from the Plant Manager

Looking back on 2016 – a year of renewal!

Since its beginning, the Lafarge Bath Plant has operated with a focus on health and safety, operational excellence, environmental protection and social responsibility. Well into 2017, we continue to move full steam ahead — helping the world build better by producing quality building products and creating new partnerships with like minds across the country.

Firstly, a wholehearted thank you goes to the staff for putting their faith in me as the new plant manager. Our company remains the industry leader in building materials, but it's no secret that the past two years have presented a few challenges. A delay in the renewal of our Union Contract was understandably a source of stress for many employees — employees are our backbone. I want to thank them for their patience and for the warmest welcome.

I'm thrilled to report that Lafarge Canada Inc. was awarded the CPIA's Plastics Sustainability Award in 2016 for our pioneering work with low carbon fuels. Our ongoing Low Carbon Fuels project with Queen's University continues to develop and will deliver on the promise of a significantly lower carbon footprint by 2020. I'm excited to see the project take shape as there are far too many materials that can be diverted from landfills and repurposed in beneficial ways.

As this letter is being written, Lafarge is starting to partner with another world-class academic institution in the University of Calgary. I'm looking forward to meeting the new team members and believe that the future of the plant will only get brighter having more resources involved in our improvement initiatives. Queens and the University of Calgary will address any research gaps as we move forward on environmental issues and give us more of a competitive edge, something we'll need more of as Spring blooms.

For 2017, we want to continue to extend our record of nine years without a lost time accident. This excellent safety performance is the pillar on which we challenge ourselves to establish new levels of performance for the kiln, low carbon fuels and housekeeping.

The Bath Plant is committed to continuous improvement in its operation, and I'm very proud of our facility for the progress it has made so far. I look forward to working with all of our stakeholders both inside the plant and outside in the community for many years to come to "cement" the Bath Plant's legacy as a world class manufacturing facility.

Scarth MacDonnell
Bath Plant Manager
Lafarge Bath

Burning Questions?

You're Invited to a public meeting on Tuesday, June 27, from 7pm to 9pm at the Loyalist Golf & Country Club, Loyalist Boulevard, Bath, Ontario, K0H 1G0. We're excited to share the results from LCF project 2 and to announce the commencement of our LCF project 3. Come for the opportunity to meet principal researchers and join a conversation that affects your community.

Meet Lafarge's New Energy Manager, Ian Scott

On March 1, Ian Scott started as Lafarge's new Energy Manager. Ian's main goal is electrical energy efficiency but the position also includes responsibility for an energy management plan that includes all forms of energy for the plant. Ian is enthusiastic about being able to participate in the reduction of energy usage at a facility that is an integral part of the local community.



Where did you grow up? Tell us your story.

I was born in Ottawa, but I grew up all across Canada with an older brother and younger sister. Both of my parents and my brother had been in the military, and so had I — for 21 years. When it was time for a change, I went back to school. I only recently started working in the energy efficiency and conservation field in 2012.

What is the biggest project that you are working on at Lafarge?

At present a dust collector. It's basically a giant vacuum cleaner. It is powered by a 600 horsepower electric motor and we're looking at how we can change the fan to increase its efficiency so that it can move the same amount of air while using less electricity.

What has been the best part of working there so far?

My colleagues are a great bunch of people to work with. Saving energy really motivates me, so being able to do more than just identifying the problem but also being involved in the solution is a great feeling.

Do you have any interests outside of work?

Literally anything outdoors — canoeing, hiking, camping, boating. I love to pull the boat up to the Sandbanks Dune Beach near Picton. It's a sight to see.

What is the most important innovation that you have seen in your lifetime?

I'd have to say electric vehicles. We're on the cusp of some very rapid change with regards to electric vehicles and I'm excited to see how this will all unfold in the next five to ten years.

Do you have a mantra that you live and work by?

St* happens. Have a plan but be prepared to go with the flow.

Lafarge's Annual Boy Scout Tree Planting Event 2017

On Wednesday, May 10, organizer and facilitator James Wynn (Maintenance Manager) — who has been running the event for the past four years — brought together about 80 Boy Scouts and Lafarge employees to plant over 1300+ new trees and shrubs of various species around the 1085 Ha property.



“Other than the standard benefits of tree planting,” said Wynn, “volunteers witnessed the reforestation of otherwise vacant farmland. The shrubs will be new homes for endangered birds, the trees will reduce noise, reduce soil erosion, increase soil carbon levels and take up carbon from the atmosphere, and, of course, it’s all good for the environment.”

Together with fellow facilitator Christopher Galamb (Maintenance Planner), and Danielle Serson (Maintenance Clerk), Wynn created a short but interactive itinerary that included a presentation about planting for endangered species and lunch from local restaurant Village Pizza.

“Being from a farming background, this event is always a nice opportunity to get out of the office and be with nature, but the best part is the education and interaction between the plant and the community.” Many of the Scouts returned for a second and third year and were excited to see the results of their labour.

The boys and girls received a badge from Scouts Canada for their hard work plus Brenda MacPhee (Environment and Systems Manager) organized gifts for everyone. “We always try to offer something that is both tree-planting and Scouts-related, and with the Lafarge logo on it. In years past, we’ve had bicycle repair kits and compasses. This year they were water bottles and head lamps.”

During the event, Lafarge had an unveiling of a commemorative sign, awarded in recognition for its work with this longstanding event.

The sign was made by Bob Harding, who is the Deputy Group Commissioner for the South Frontenac Scout Group (he will soon be relocating to Kelowna, BC with 28 years as a Scouter). The group was also joined by Shawn Fortin, Group Commissioner for the 1st Amherstview/Bath Scout Group.

In talks about the event’s future, Wynn expressed that “even though it was tough with the drought last year, the past two have seen a big increase in participation.” He hopes that with the help of the Scouts and Mother Nature, everything will continue to grow.

“The funnest part is showing results. We all want to see results.”



The Tall Ships Drop Anchor in Bath July 7, 8 and 9

In honour of the 150th anniversary of the Canadian Federation, more than 40 tall ships will be pulling into the Port of Bath, with thousands of people expected to flood the town at Rendez-Vous 2017 Tall Ships Regatta.

Fairfield-Gutzeit House in view, Canadians will have a unique opportunity to tour the majestic beauty of the cathedrals of the sea, plus enjoy a schedule that will make it a most memorable experience for the whole family. You can even plan your own sailing adventure!

Purchasing a passport gets you aboard the 11 tall ships stopping at the port of Bath. Families get to enjoy live music, historical naval demonstrations, children's activities, family games and a craft beer garden. See www.rdv2017bath.com for more information on scheduling, ticket pricing and vendors.

Between June 30 and August 20, the ships will be stopping at other ports in Ontario, as well as Quebec, New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland. For specific details on participating cities, see www.rdv2017.com/en/participating-cities.



Cement 2020 and Beyond

Years in process, the Cement 2020 partnership with Queen's University to reduce greenhouse gases from the plant has made progress, far greater than expectations.

While the initiative was originally to substitute up to 30 percent of fossil fuels with Low Carbon Fuels by the year 2020, Dr. Darko Matovic, principal investigator with Queen's University, (Mechanical Engineering) says, "the goal is a moving target" but "right now, it looks like it's going to be better than what we initially thought."





CO₂ emissions from cement production come from fuel combustion (30-40 percent) and the rest (60-70 percent) from limestone conversion to cement. Queen's specific role deals with the property of the new fuels and how to handle and use them safely. "Our role has two main focus points," says Matovic. "moisture control of the biomass and combustion modeling — how much and how to dry the fuels before they go into the kiln — things that cannot be theorized." So work has been done on a new drying test rig.

"We made up a chamber (like a barrel) that contains a sample size of 100 kilograms of material and a controlled airflow, measuring, in real time, how that drying happens for different materials (for example, wood, plastics)."

To aid in the project's environmental goals, the team is also looking at more energy efficient ways to do the drying itself, before the material is used to fuel the kiln — with less air and less heat — starting with waste heat.

"The complicated part about using these kilns," says Matovic, "is that the problems can only be solved through experience.

It's very difficult to experiment on the facility itself so a lot of preparation and trial has to go into exploring the capabilities of new fuels." Tests will continue over the coming years, with findings to be shared across Canada.

Partnership Expands to Exshaw Plant and University of Calgary

Exshaw and the University of Calgary are the latest to be added to the partnership with Bath and Queen's University. They will be contributing to the research in expanding the range of the new fuels and their use in different cement kiln technologies.

Dr. Joule Bergerson is the principal investigator from the University of Calgary, taking on the role of sourcing issues with the materials (for example, availability, logistics, life cycle analysis).

"They are expected to supervise extensive tests at Exshaw, with a tight collaboration and fair exchange of data results between all four parties," notes Matovic. The new project is funded by Ontario Centres of Excellence (OCE), Alberta Innovates (AI), Emissions Reductions Alberta (ERA),

Lafarge, and the National Science & Engineering Research Council (NSERC).

Rob Cumming, Lafarge Canada Environment Director, and the Lafarge team see this as an opportunity to boost the research to identify technologies that will make it possible to achieve an even lower carbon footprint.

"We started this project at Lafarge because we need to do our part to address the human causes of climate change - and we see it as a competitive advantage in the long term to act early and to work with expert partners from Canadian Universities.

Alberta, similar to Ontario a few years ago, has not employed low carbon fuels at cement plants and sharing of experience will be mutually beneficial. They are two very different plants — Bath and Exshaw — but this partnership will definitely expand the experience across Canada, as we move forward."



Lafarge North America, Bath Plant is committed to being an environmentally responsible organization.

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