

BUSINESSBC

MONDAY, OCTOBER 28 | 2013 | 604.605.2520 | SUNBUSINESS@VANCOUVER.SUN.COM

BRIEFINGS

Boeing's big 747
a shrinking presence

For decades, the Boeing 747 was the Queen of the Skies. But the glamorous double-decker jumbo jet that revolutionized air travel and shrunk the globe could be nearing the end of the line. Boeing has cut its production target twice in six months. Just 18 will be produced in each of the next two years. Counting cancellations, it hasn't sold a single 747 this year. Some brand-new 747s go into storage as soon as they leave the plant. Boeing says it's committed to the 747, and sees a market for it in regions like Asia. But most airlines simply don't want big, four-engine planes anymore. They prefer newer two-engine jets that fly the same distance while burning less fuel. "We had four engines when jet engine technology wasn't advanced," Richard Anderson, CEO of American carrier Delta Air Lines, said. Northwest last ordered a 747 in 2001, according to Flightglobal's Ascend Online Fleets. Part of the problem is all those seats. A 747 can seat 380 to 560 people, depending on how an airline sets it up. A full one is a money-maker. But an airline that can't fill all the seats has to spread the cost of 240,000 litres of jet fuel — roughly \$200,000 — among fewer passengers.

Ex-Sears CEO
joins Sephora

The former CEO of Sears Canada, Calvin McDonald, has been named to the top job in North America at beauty giant Sephora. McDonald resigned abruptly from Sears Canada last month in the middle of the retailer's three-year turnaround plan. He had been at the department store operator since June 2011, after arriving from grocery giant Loblaw. Sephora says McDonald will take over as chief executive and president of Sephora Americas effective Jan. 1. He'll replace David Sullivan, who is leaving for Kendo Brands. Sephora Americas operates more than 330 stores in the U.S. and Canada and sells a variety of products related to makeup, skin care, fragrance, bath and body and hair care. In total, Paris-based Sephora has 1,780 stores within 29 countries in Europe and locations in China and Latin America. The athletic McDonald, who often posts updates to his Twitter feed about charity runs or bike rides he was involved with, was seen as an unusual fit for Sears, a company better known for its homewares.

McDonald's phasing
out ties to Heinz

McDonald's has lost its taste for Heinz ketchup. The fast-food giant said that it is cutting ties with the condiment company after 40 years due to management changes there. A former Burger King CEO became head of Heinz in June after the company was bought by Warren Buffett's Berkshire Hathaway and 3G Capital. 3G, a Brazilian investment firm, also controls Burger King. The impact of the change may be tasted more overseas. In the U.S., McDonald's uses Heinz products only in Pittsburgh and Minneapolis restaurants. "As a result of recent management changes at Heinz, we have decided to transition our business to other suppliers over time," McDonald's Corp. said in a statement.



ENERGY

Burnaby
firm turns
waste to
warmth

International Wastewater Systems CEO Lynn Mueller poses outside Metro's Annacis Wastewater Treatment Plant, whose end product his firm can transform into energy.

Sewage recycled
to heat and
cool buildings

DERRICK PENNER
VANCOUVER SUN

Lynn Mueller, head of International Wastewater Systems, has a keen interest in sewers. More specifically, he is obsessed with the hot water people flush down their drains and figuring out ways to recycle all that heat to be used again as energy for building systems — heating, air conditioning and hot water. "A lot of people probably dream about other things than (sewage heat recovery), but I've been thinking about it for a long time," Mueller told The Sun.

Recycling energy from buildings is becoming de rigueur in sustainable construction. In Vancouver, the Olympic Village project — now known as The Village on False Creek — was a pioneer with its heating system that sources its energy from city sewer lines. Downtown, the Telus Garden development will earn environmental points with a planned system that will sop up the waste heat from banks of computer servers. After a 20-year career in geothermal heat-pump sales, Mueller started his company three years ago to manufacture turnkey systems that can act as sources of environmentally sustainable energy for clients in projects ranging from condo complexes to convention centres.

To date, the company has installed three of its patented SHARC (which stands for sewer heat recovery) systems in Metro Vancouver — one in a 60-unit North Vancouver condo complex, one in Richmond's Gateway Theatre and one in a 172-unit condominium project near the University of B.C.

The Burnaby-based firm is working on another five projects in Metro Vancouver, Mueller added, and is looking to secure up to another 40 across the United States, with interest cropping up outside North America.

"It's been a phenomenal three years," he added. "We went from an idea that we patented to distribution all over the world in three years."

Mueller estimates International Wastewater's sales could reach \$10 million to \$20 million next year.

International Wastewater's SHARC system consists of a filter,



Matt Warburton, technical services director at International Wastewater Systems, stands outside the 172-unit Sail condominium project, which features a SHARC wastewater heat recovery system.

which separates solids from sewage, a pump, which moves the water through a heat exchanger, and heat pumps that take heat from the exchanger for use in either building heating or hot water or both, along with a computer control unit.

And the system can be used to cool a building, Mueller added. In that case, the pumps extract heat from the building (there is always a separation between the sewer water and a building's interior) and transfer it through the exchanger into the sewer water. At the end of the cycle, the clear sewer

water picks up the solids that were extracted at the start and flushes them back into the municipal sewer system.

Mueller said municipal sewage typically starts out at a temperature of 21 to 23 C, which he refers to as an "ubiquitous, readily accessible" source of energy — though it carries a few negative connotations.

And for the electricity that is used to run a SHARC system, International Wastewater claims it can pump out the equivalent of six times the amount of energy to heat a building — or five times the

"It's been a phenomenal three years. We went from an idea that we patented to distribution all over the world in three years."

LYNN MUELLER
INTERNATIONAL WASTEWATER SYSTEMS

amount if it is being used to make new hot water.

Mueller said that capital costs run from about \$250,000 for a system like the one installed in developer Adera's 172-unit Sail condominium building near UBC into the millions.

He added that IWS has been shortlisted in the competition to provide a system for Seattle's new arena project, a deal that would be worth about \$3 million.

Such building-discrete energy-recovery systems are fast becoming an effective way for city residents to reduce energy use and their environmental impact, according to Roger Bayley, program director for Smartforme, a Metro Vancouver company selling a different type of technology that recovers waste heat out of the ambient atmosphere around buildings.

Bayley was a consultant to the Olympic Village project and added that the building-level technologies being used now weren't available three or four years ago and "in terms of energy delivered per dollar of capital cost, are considerably more cost-effective."

Smartforme's centrepiece project at the moment is a system being installed in Intracorp's two-tower, 556-unit MC₂ project adjacent to the Marine Gateway Canada Line station.

However, Bayley added that a component of their work is still in educating the segments of the building chain — the developers, the contractors, the consultants and buyers — about the potential for such systems.

"We're all pushing along at the front edge of this," Bayley said.

"We're seeing a lot of interest in what we've been doing. Developers recognize it's allowing them to take a more responsible position in the marketplace without a financial penalty to themselves."

dpenner@vancouversun.com
Twitter.com/derrickpenner