

Neighbourhood News

WINTER/SPRING 14

A NEWSLETTER FOR OUR NEIGHBOURS



From Source to Customers



How an Integrated Business Model Benefits the Marketplace

When it comes to delivering a product safely and responsibly from its origins to its customers, a company needs to be a well-oiled machine with all its parts driving together towards a common goal.

"Chevron Canada Limited operates through a centralized value chain organization in order to facilitate a culture where all employees work together," explained the Refinery's Fuels Supply Manager Allan Chang. "From the point where the crude is extracted from the ground until it reaches the marketplace, we all understand that there are many people and areas contributing to the goal of delivering our product."

Steps Along the Supply Chain

About two thirds of transportation fuels (i.e. gasoline, diesel, and jet fuel) consumed in BC comes from outside the province.

Getting these to customers is a complex and dynamic process.

At Chevron, it begins with sourcing crude oil from Alberta and British Columbia. Twenty-five per cent of the gasoline products purchased in British Columbia arrive here as unrefined crude shipped to the Burnaby Refinery by pipeline, rail, and truck. When it arrives, it is refined into several products: propane, jet fuel, gasoline, diesel, fuel

oil, and asphalt. These products are then distributed and marketed to customers. The entire process makes up the supply chain and each part of the chain needs to work efficiently and effectively to ensure that the products reach end users in a reliable manner.

"It's vital that everyone who works for Chevron Canada is aware that, to be

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Manager's Message

STEVE PARKER
GENERAL MANAGER



Filling our tanks up with gas is one of those things we take for granted. We assume that what we expect to happen will, and few of us have any idea how complicated the process of getting the gas to the pump is. This issue's cover story aims to demonstrate how complex the supply chain of moving crude oil from the ground to the gas station actually is, involving many steps from exploration to drilling, extracting, transporting, refining, upgrading, distributing, and retailing. Thousands of activities have to be done right and any breaks to the chain can affect the supply of gasoline. Just as it is

good for people to understand where their food comes from, it is also good to know where the Refinery's products come from and go to. It is also important for the community to appreciate that their risk to a steady supply of gasoline is greatly improved by having a Refinery here: being close to customers increases the security of supply.

Our Safety Matters article examines the many layers of protection we develop to ensure safe operations. Chevron is very good at managing hazards and one of the ways we do

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THIS DOCUMENT CONTAINS IMPORTANT INFORMATION.
PLEASE HAVE SOMEONE TRANSLATE IT FOR YOU.

這份文件包含重要資料，請找人為您翻譯。

이 문서에는 중요한 정보가 담겨있습니다.
다른 사람에게 번역을 부탁하십시오.

此文件包含重要信息，希望請人為您翻譯。

ਇਸ ਦਸਤਾਵੇਜ਼ ਵਿਚ ਮਹੱਤਵਪੂਰਨ ਜਾਣਕਾਰੀ ਹੈ। ਕਿਰਪਾ
ਕਰਕੇ ਕਿਸੇ ਨੂੰ ਕਹੋ ਕਿ ਉਹ ਤੁਹਾਡੇ ਲਈ ਤਰਜਮਾ ਕਰ ਦੇਵੇ।

Safety at the



MANAGER'S MESSAGE CONTINUED

this is by understanding the importance of managing risk to its lowest levels. Many layers of protection are put in place intentionally to prevent incidents from occurring. We know that a single layer of protection is never enough; instead we carefully manage any potential risks with many layers.

A special thank you to everyone who attended our November neighbourhood CAP meeting. This was a great forum for the community to voice any concerns they have about the refinery's operations. The health risk of living next to our facility was a valid and good topic to raise and was a good example of how the Community Advisory Panel is supposed to work by bringing forward issues that are on the minds of neighbours. The work conducted and presented by Metro Vancouver and Fraser Health was commendable and we appreciated these independent service providers attending and answering your questions. At this year's first CAP meeting held the first week of March, we discussed the enhanced features of our fleet of rail cars that ensure the safe transport of crude oil to the Refinery, and answered questions to help CAP members present to better understand those features. CAP members have requested a tour of the rail offloading facilities and we will schedule that in May.

As always, I welcome your comments and questions on our operations.

FROM SOURCE TO CUSTOMERS

successful, all areas must work collectively to achieve strong results," said Allan. "It's difficult to do that if different disciplines are compartmentalized with their own objectives. An overriding factor is Chevron's strong focus on the safe arrival and production of products and ensuring environmentally sound operations. We are always aware of these factors in our efforts to meet fuel demand."

Delivering Products Cost-effectively

Chevron Canada provides a large amount of the gasoline products consumed in BC.

"Because we supply a good portion of the provincial demand for fuel, any impact to the Refinery's production capabilities affects the end customer," said Allan. "If we cannot operate reliably and efficiently, the province's fuel supply is affected. That in turn impacts the price at the pump. Continuous and safe operations allow us to keep costs lower."

Layers of Protection Create Robust Safety Systems

Safety is always of paramount concern at Chevron. The Company's safety culture is shaped by two main guiding principles: "Do it safely or not at all" and "There is always time to do it right." Much effort goes into ensuring incident- and injury-free operations.

"We have created layers of protection that prevent initiating events from becoming an incident," said Jill Donnelly, the Refinery's manager of Health, Environment and Safety. "For instance, we engineer safety into all our designs in order to engineer out risk. We have procedures for how to operate equipment safely. Everyone working in specific areas is trained on how to use the systems and the equipment. We have communications protocols and procedures. We put on personal protective equipment. All these protective layers are in place in order to reduce the risk of having an incident."

"Everyone who works here - staff and contractors - is given an in-depth orientation session which includes learning how to do personal risk assessments and process safety risk assessments," added Dave Sharpe, the Operational Excellence/Process Safety Management team lead. "One of the first things you learn when you work here is to use what we call your 'Stop Work Authority' which means you have the right to stop work if you feel anything is unsafe. This allows you to express any concerns you may have, understand why the situation is safe or not and have it addressed. After this, if you are still



concerned, you can take the situation to a higher authority. I see conversations like this happening regularly, so I know it's a value that everyone has taken to heart."

During the initial orientation period, new workers are also introduced to the concept of layers of protection and the Refinery's 10 Tenets of Operational Excellence, which are rules that are never to be broken.

"These tenets tell us to always follow rules and regulations, always address abnormal situations, always operate in a safe and controlled environment, among others," said Dave. "The layers of protection we have in place range from training, to design and maintenance, procedures, inspections, alarms, and the experience of our operators, among others. When you line up all these layers, the possibility of an incident occurring is greatly diminished. Indeed, the more layers of protection you have, the less likely you are to have an incident."

As part of these protective layers, hazard assessments are performed regularly on all the Refinery's operating units, and all the operators are trained in emergency response. (An additional layer of protection is having the support of the Burnaby Fire Department should it be called upon.)

"We are constantly improving refinery standards based on lessons learned in the industry," said Dave. "Any time there's an incident elsewhere, there's an investigation and we adjust our standards based on those findings."

Full Steam Ahead!

Neighbours will have noticed steam rising from various units in the Refinery's processing area. Steam is an important source of heat to the Refinery and is used to assist the process of breaking down hydrocarbons (which occur naturally in crude oil) in columns as well as driving the refinery's many turbine-driven pumps and fans. Steam is also used for heat tracing – preventing products from freezing inside pipes during colder weather.

"Steam is produced in the Refinery's four fire boilers (which are each about the size of a small house) and in its waste heat boiler (the size of four-storey houses)," said Chief Power Engineer Jason Cantas. "In a fire boiler, natural gas is burned in a furnace which heats water inside metal tubes to produce steam. The steam from all four of the Refinery's fire boilers feeds into the same system and then runs throughout the facility, supplying steam where it is needed."

The Refinery's waste heat boiler recovers heat that is generated through the refining process. The boiler is able to harvest this heat for additional energy. "Waste heat is

recovered through refinery processes to generate steam to meet refinery demand," said Jason.

Pressure in the boilers is constantly monitored and controlled by automated systems and safety valves. Some of the turbine-driven pumps are run at pressures ranging from 140 pounds per square inch (psi) to 400 psi.

The Refinery's boilers undergo routine maintenance every two years. Each one is inspected, any deficiencies are addressed, they are cleaned if necessary, and the safety instruments are tested prior to going back into operation. All of the boilers meet Metro Vancouver's air permit requirements, and two are equipped with the latest low NOx emission burners.

"All boilers are regulated by the BC Safety Authority, which ensures the safe and efficient operations of the boilers by regulated Power Engineers," added Jason.



Across the Fence



New Fire Hall Close to Completion

Senior Design Engineer David Wu anticipates Refinery staff will be able to move into the new Refinery fire hall on Penzance Drive by the Spring. The building envelope and structure were completed earlier this year, with finishing touches now happening on the facility's interior.

Refinery adds New Fire Truck to its Fleet

The Refinery has a new industrial grade fire truck bringing its fleet to two large trucks, two quick response vehicles, and one hazardous materials truck.

"This new truck has a 50-foot hydraulic-lift ladder, a higher pump capacity and is fully foam-equipped," said Mike Ward, Emergency Response, Safety and Security Lead. "It's a bit smaller than the previous truck it replaces but can move quickly around the refinery and manoeuvre well in corners."

Mike reports that the new truck has responded positively in test situations and that it will serve the refinery well for fire-fighting and rescue purposes.

Area 2 Seepage Update

The refinery is continuing to successfully address the seepage of an oily substance that was discovered near the Area 2 processing section and along part of the Burrard Inlet foreshore in 2010. A Perimeter Extraction System (PES) barrier consisting of some 40 extraction wells is being used to prevent offsite migration of the seep.

In the coming months, several enhancements will be performed on the PES barrier including:

- Upgrading the piping to better accommodate the groundwater being pumped.
- Obtaining and installing a permanent, dedicated air compressor.
- Designing and installing a dedicated oil-water separator/sump.
- Connecting the PES to the new sewer.

"Planning is ongoing with installations expected to be completed this summer," said Environmental Specialist Chris Boys. "On the foreshore, the oleophilic clay barrier is doing its job of absorbing any liquid hydrocarbons. This is an interim measure and planning is in progress for a more permanent remedy. Wells are sampled every three months and the site is inspected weekly."

Updates and reports on the seepage are provided every quarter and are posted on the Chevron CAP website (www.chevroncap.com).

Recap of November Community CAP Meeting

Neighbours were invited to attend a public meeting last November during which they learned of the activities undertaken in 2013 by the Chevron Burnaby Refinery Community Advisory Panel (CAP) members. An important focus of the meeting was an abbreviated presentation by representatives from Metro Vancouver and Fraser Health on the updated local air quality study. (The full presentation was given at the CAP's September meeting and is available online at www.chevroncap.com/files/documents/Attachment2FH_MVCAPresentationFINAL.pdf.)

"We're grateful to Metro Vancouver and Fraser Health for attending the November public CAP meeting to discuss further the findings from their recent investigation to update the 2002 study on local air quality," said the Refinery's Manager of Health, Environment and Safety, Jill Donnelly. "The results of the analyses they conducted indicate that the overall annual long-term sulphur dioxide and volatile organic compound levels near the Refinery have dropped since 2002. Trends emerging over the past decade have shown steady improvement."

CAP Recruitment Continues

We are looking for volunteers for the Chevron Burnaby Community Advisory Panel. CAP plays an important role in keeping an open dialogue between the refinery and its neighbours by identifying and resolving issues of mutual concern.

You can find out more about CAP and the role of CAP volunteers at www.chevroncap.com. This is a great opportunity to discuss safety and environmental issues, as well as refinery operations, emergency response, odour mitigation, and noise reduction.

If you are interested in learning more about the committee or potentially participating as a member of CAP, please contact:

Catherine Rockandel, CAP Facilitator
Tel: 604-898-4614
Email: cat@growpartnerships.com

Community Corner



What are you **CRAVING?**



NEW COMMUNITY KITCHEN AT BRENTWOOD COMMUNITY RESOURCE CENTRE

Crave 2014

Your chance to dine out and sample all the great restaurants in the Heights is happening April 22 to 24 with Crave 2014, a presentation of the Heights Merchants Association.

"This is a great opportunity to try a variety of different restaurants at door-crasher prices," said the association's executive director, Isabel Kolic. "The participating restaurants are preparing special menus especially for Crave 2014, so even if you're a regular patron you will be able to try something new."

Each participating restaurant will offer various options as part of their set menus at \$15, \$20 and \$25 price points. Check the association's website for

a list of participating eateries:
www.burnabyheights.com.

Brentwood Community Resource Centre

Join the Burnaby Community Services, Burnaby Meals on Wheels, YMCA of Greater Vancouver, and Mosaic Settlement Services as they celebrate the official opening of their new shared community space with a ribbon-cutting ceremony Friday, May 2 at 1:30 pm at 2055 Rosser Avenue (near Lougheed and Willingdon).

"Chevron provided a generous donation which was put primarily towards setting up our new community kitchen," said Burnaby Community Services' Executive Director Stephen D'Souza. "We are grateful for the Refinery's ongoing commitment and support

in helping to realize the potential of this amazing space."

For more information about the May 2 open house, please call 604-299-5778.

Burnaby Neighbourhood House Opens New North Location

The Burnaby Neighbourhood House opened its North Location in early February of this year and is actively seeking volunteers to answer phones, get involved with programming, or be part of the steering committee. The new location, 4463 Hastings Street, is open Monday to Friday from 9:30 am to 4:30 pm.

"This location is intended to be a place that supports neighbours and connects

Looking Back

THE REFINERY
CIRCA 1958



Community Corner

Community Contact Line

them with their community," said Executive Director Antonia Beck. "We hope to offer things such as a coffee time for parents with young children and drop-in computer lessons on the two computers that are available."

For more information or to get involved, please call 604-294-5444.

Go Glam for Hats Off Day

The 30th anniversary of the Hats Off Day parade is happening Saturday, June 7 and to celebrate the Heights Merchants Association has announced a theme for the day: "The Totally Awesome 80s."

"The 1980s was a great decade for outrageous characters and fashion styles, and this Hats Off Day will be an excuse to channel your inner Madonna or Boy George," said Isabel Kolic, executive director for the association. "Hats Off Day is a unique event - the biggest of its kind in Burnaby and a great day for the Heights to shine. We're looking forward to another spectacular event this year."

Mark your calendars - it's an event you won't want to miss.



Giro di Burnaby

Chevron Canada is proud to sponsor many community events including the Giro di Burnaby Criterium Cycle Race which takes over the neighbourhood this year on Thursday, July 10. This is a great spectator sport with the crowds really adding to the atmosphere as the cyclists pedal as

fast as their feet can go over the fast and challenging course along Hastings and Albert streets between Madison and MacDonald. If you have yet to enjoy the thrill of the race, mark the date on your calendar and plan to attend.

(604) 257-4040

Chevron's Burnaby Refinery welcomes your calls and feedback. If you have any comments or concerns, please do not hesitate to call our Community Contact Line: 604-257-4040.

This line is staffed on weekdays between 8 am and 4:30 pm. Your call will be directed to the most appropriate person who can respond quickly. In the event of an emergency, or significant maintenance work underway that may contribute to unusual operating conditions, information and regular updates for the public are made available.

If you are calling after hours or on a weekend, your call will be forwarded to our on-duty shift supervisors. If you would like to report an odour or if you notice anything that you think is unusual, please let us know. Your calls are very important to us and we will respond as quickly as possible.

To report odours or air quality issues you may also contact the Metro Vancouver air quality officer **604-436-6777**

For general information about the refinery visit **www.chevron.ca/operations/refining**

For information about the Chevron/ North Burnaby Community Advisory Panel, visit **www.chevroncap.com**



Neighbourhood News is a quarterly newsletter produced by Chevron's Burnaby Refinery for residents of the Heights, Capitol Hill and surrounding areas of North Burnaby.

We invite your comments, questions or suggestions for future articles.

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