

Neighbourhood News

FALL 12

A NEWSLETTER FOR OUR NEIGHBOURS



Fall Maintenance Turnaround



Did you ever notice that when the leaves start to fall the Refinery positions itself for a Maintenance Turnaround? This isn't always the case, but once again this fall the refinery will have a short duration Turnaround starting in mid October. This is our way of making sure the refinery is operating in a safe, efficient and reliable way. We also take advantage of the turnaround period to make environmental and safety upgrades that can only be done when the equipment is not operating. This fall's turnaround will begin in mid-October and take roughly two weeks to complete.

"A turnaround is a time for us to do important maintenance; it's like a pit stop in motorsports, we want to get in, do our work, and then get the refinery back in

operation as safely and quickly as possible," said Nick Middleton, who plans and supervises the refinery's turnarounds.

Planned Maintenance

The refinery's crude unit - a unit that functions in the early stages of processing crude

oil into finished products, will be the main focus of this year's fall turnaround. "We'll be entering the crude unit atmospheric column to inspect and clean it. We'll also be servicing some related heat exchangers, valves and pumps. It's all part of regularly scheduled maintenance that in the case of this particular piece of equipment, occurs every four years or so" said Nick.

Impact on Neighbours

"A turnaround means people are working on-site around the clock to get the job done as efficiently as possible," added Nick. "While we hope neighbours won't notice anything unusual, there may be a minor increase in traffic in the mornings during shift changes. Slightly elevated flaring may also occur while equipment is being brought offline in preparation for the shutdown to begin and while things are subsequently restarted when we're done."

The effect on neighbours is forefront in everyone's minds and staff and contractors work hard to minimize potential noise coming from any overnight work.

Manager's Message

JIM GABLE
GENERAL MANAGER



It's shaping up to be a busy fall here at the refinery. As you can read elsewhere in this issue of Neighbourhood News, we'll be having a turnaround period in order to conduct maintenance on some of our important process units. Planned maintenance is just one of the ways we keep the refinery operating safely and efficiently. While we expect there will be some increase in traffic, we don't expect it to be significant. We will have shifts going 24/7 to get the work done as efficiently as we can.

The refinery's flare is often a subject of conversation when I talk with neigh-

bours. It's a very visible part of our operations and I can understand why people are curious about what it does. We recently updated our refinery Community Advisory Panel (CAP) on the flare and you can learn more about it in our Tech Talk article. Similarly, neighbours who live close to the refinery sometimes wonder about the various alarms they hear coming from the plant on a regular basis. For example, we always know its lunchtime when the Friday horns go off. Alarms are a key part of our internal safety system for employees and contractors and regular testing is important

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ਕਰਕੇ ਕਿਸੇ ਨੂੰ ਕਹੋ ਕਿ ਉਹ ਤੁਹਾਡੇ ਲਈ ਤਰਜਮਾ ਕਰ ਦੇਵੇ।

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Chevron Refinery Tech Talk

The Flare

The flare is one of the most visible features of the Burnaby Refinery. Flares are pressure safety relief devices that are used throughout the petroleum industry to ensure that equipment does not exceed the limits set for the safety and integrity of a process unit. Refineries utilize flares because the refining process occasionally produces more gas than is needed. The flare's function is to eliminate this excess process gas by safely burning it off rather than venting hydrocarbons into the atmosphere. Flares are not designed to burn waste gases; they are meant to be used primarily for pressure relief.

Part of the Refinery's Safety System

"The flare is an integral part of the refinery's 'relief system' that collects and safely burns excess hydrocarbons during regular operations, during maintenance shutdowns or emergencies" said Health, Environment and Safety Manager Jill Donnelly. "It has to be operating at all times; it's one of the most important safety devices we have on site. It would only be completely off if and when we have a full plant-wide maintenance shutdown. Hundreds of vessels in the plant are tied into the flare system through a complex control system of piping and valves."

MANAGER'S MESSAGE CONTINUED

to help ensure they will work as needed during an emergency.

A key value at Chevron is working to be a good neighbour and that's why we get involved in helping local charitable groups. Our annual Movie in the Park is one way we're able to support important non-profit organizations while celebrating why the Heights is such a great place to live, work and play. This eagerly anticipated evening has become an annual fixture on many Heights-area families' "must do" lists. We love putting the event together and are proud of how popular it has become. I hope your family enjoyed the event as much as our employees did meeting and mingling with so many of our neighbours.

Have a safe and happy fall season.

The flare system is designed to burn the vented hydrocarbon vapours in an elevated stack efficiently and with a minimum amount of smoke. It has a natural gas pilot light that burns all the time (like the furnace in a home), so it's ready when needed. Purge gas flows help to keep the flame lit at all times. Steam aerates the combustion zone to promote a cleaner burning flame. The flare is equipped with a remote ignition system and a backup system to ensure it is always ready to function as designed.

"Flow meters were added to the refinery flare system in 2006," said Jill. "These can help us identify and understand where excess flow is coming from. A new, state of the art flare tip was installed in 2008 to improve combustion efficiency and it's also quieter than the previous flare."

Air Permits

The refinery flare is regulated as part of Chevron's Air Permit GVA0117, issued by Metro Vancouver.

"The permit includes limits on the maximum flow allowed to the flare," said Jill. "It also



BIRDS EYE VIEW OF THE REFINERY'S FLARE TIP

includes an opacity limit, which refers to the smokiness or degree to which light can travel through the flame."

Emissions from the flare account for about one per cent of the refinery's total emissions. During regular operations, the flame generally looks small. During a shutdown, the flame is larger than normal during preparations to begin a maintenance shutdown as equipment is being depressurized and again when the units are being re-started after the work is completed. During these shutdown periods emissions from the flare itself may be higher while overall refinery emissions are lower than they would be during regular plant operations.

Safety at the Refinery

What's that Sound?

From time to time, the refinery tests employee and contractor alarm systems that can sometimes be heard by neighbours who live within a few blocks of the Area 1 facilities near Eton Street and in Area 2 at the foot of Penzance Drive. The most recognizable of these are the fire and hydrogen sulfide alarm horn tests that are heard every Friday at noon as part of the rigorous emergency preparedness program run by the refinery.

"It's important that we test these alarms weekly to make sure they're in good working order," said Mike Ward, Emergency Response, Safety and Security Lead. "Maintaining alarms is crucial to emergency preparedness. These horns need to be quite loud because workers have to be

AREA 1 INTERNAL FIRE ALARM HORN

able to hear them over the background sound levels around the plant, or from any tools, equipment or vehicles they may be using. The sooner we're aware of an emergency, the sooner we can deal with it."

The tank truck loading terminal near Eton Street is also equipped with an emergency alarm system. Here, alarms are used to alert workers to a fire or emergency situation at the rack or inside the adjacent office building.

"These alarms, that sound like loud beeping sound and are regularly tested by a company that specializes in emergency and fire alarm systems," said Rick Spence, Transportation Supervisor for Terminals and Operations. "They test the alarms for a short period of time to ensure they are audible and then reset them to resume monitoring the loading rack in silent mode." Like the Friday noontime tank farm horn, the tank truck loading rack alarms also help ensure the safety of the workers and the facility.

Across the Fence



Tank Farm work Continues this Fall

The refinery has begun work on two more tanks that have been earmarked for inspections in 2012. Tank 152, which is located in the middle of the tank farm, is being inspected. The tank will also receive upgrades that will help ensure product quality. Chevron's Tank Program Coordinator Dave Williamson anticipates work on tank 152 will be complete early in 2013. "Sound absorbing barriers will be in place during any work requiring vacuum trucks," said Dave, "and we'll have a portable vapour recovery unit on hand to capture any vapours that may escape during the cleaning process."

The other tank scheduled for maintenance, tank 117, will be taken out of service in December and its inspection will be carried out in the new year. As with all other tank work undertaken at the refinery, measures will be taken to mitigate work related noise and potential odours.

Work will also soon be underway on Tank 81 to conduct required repairs and refurbishing.

To the average person, refinery tanks may look like simple structures but looks can be deceiving. They are actually complex systems that require specialized expertise and equipment to operate and maintain properly. To stay up to date on industry best practices, Dave has recently returned from a two-week American Petroleum Institute course on the inspection and repair of storage tanks.

"It's just one of the ways we're staying abreast of the latest inspection techniques that help us manage out tanks here at Burnaby" he said.

Tree & Perimeter Vegetation Management

Chevron has been working with Bartlett Tree Services since 2011 to create a comprehensive

inventory and assessment of all the trees and vegetation within and around the refinery perimeter. Using this information, the refinery has been developing a comprehensive vegetation management plan.

"Each tree or group of trees has now been tagged with GPS (global positioning system) tags that correspond to numbers on an aerial map," said Chevron's Frank Centanni, who is working closely with the experts from Bartlett. "We've assessed their condition and removed any hazards that might affect the health of the taller trees. This inventory has allowed us to come up with a proactive management strategy for maintenance of the trees and other vegetation."

A software tool to assist in this process is also being developed. It will include maps of all areas around the refinery with vegetation (e.g. along the perimeter; around tanks; along pipelines; near fire hydrants) as well as charts that will include up-to-date information on each tree's species, health, height, age range, and canopy radius.

"We recently completed some work along the Area 1 tank farm perimeter," said Frank, "and will be doing further work along the Eton Street fenceline shortly. Over the next while we'll be working our way west to the park area where some of the trees need thinning. There are also a couple of areas where we'll be cleaning up from old windfalls and planting low-lying shrubs along the fence to improve natural screening of the tanks and other work areas."

The new vegetation management plan will allow Chevron to take a more systematic approach to the regular maintenance of trees and other plants along the facility perimeter. The work is being done by certified arborists

and in consultation with City of Burnaby staff. The plan seeks to find the best compromise between safety, security, improving the aesthetics of the interface between the refinery and the surrounding properties while preserving the health of the trees and maintaining view corridors as much as possible. "Many of the mature trees have flourished in this area over many, many years" added Ray Lord, the Refinery Public and Govt. Affairs Manager. "We recognize that the long-term maintenance of trees and other landscaping is important to local residents and we want to do our best to be a good neighbour."

In addition to the work being done by Chevron, Frank advises that BC Hydro will also be in the neighbourhood in coming weeks to clear electrical lines of any hazards along Penzance Drive.

Chevron Burnaby Refinery Community Advisory Panel (CAP) Neighbourhood Meeting

The Chevron Burnaby Refinery Community Advisory Panel was created in 1996 to facilitate dialogue and foster understanding between the refinery and the neighbourhood residents. CAP members include residents who meet regularly with refinery management and regulatory officials to review plant activities and current issues related to the refinery's operations.

All neighbours are invited to attend a special Neighbourhood CAP Meeting on Thursday, November 21st, 2012 from 7 to 9 pm at the Confederation Seniors Centre, 4585 Albert Street, Burnaby.

This will be our third Neighbourhood CAP Meeting and the evening will include an overview of CAP's activities in 2012. This is your opportunity to provide suggestions on topics for CAP discussions for the coming year. Neighbours will also be able to meet with refinery management and other members of the panel in order to learn more about the work done by CAP.

More information about the evening is available by calling the Burnaby Refinery's Community Relations office at 604-257-5030 or visit the CAP website at www.chevroncap.com.

Community Corner

Movie Magic

This past summer's Movie in the Park event was another great success. An estimated 2,500 people came out to enjoy a beautiful late summer evening, which concluded with a screening of *Pirates: Band of Misfits* on the giant outdoor screen.

Chevron's annual Movie in the Park is so much more than simply watching the feature film. It's a great community event where neighbours meet up and enjoy all the family activities as well as the barbecue and food concession which benefits Burnaby Community Connections.

It's also become an opportunity for other Burnaby groups to gather and share community information. This year, Burnaby



Hospital Foundation was onsite promoting its annual Rhythm of Life – The Run and Walk for Everyone.

"Chevron has been assisting us for many years and has always shown strong community support," said Burnaby Hospital Foundation's Barb Martineau. "Our run/walk was held shortly after the Movie in the Park, so this was a great chance for us to create awareness of another fun family event that promotes healthy lifestyles while supporting the foundation."



REFINERY EMPLOYEES RUSS BROWN (L) AND PAUL KWAN (R) VOLUNTEERED AT THIS YEAR'S MOVIE NIGHT

2012 BC Seniors Games

Chevron was proud to be one of the sponsors of the 25th BC Senior's Games that took place in venues throughout Burnaby in August. Over 3,700 BC seniors competed in 26 different sporting events and were an inspiration to everyone who came out to watch their tremendous athletic achievements.

"The games were very successful," said Darlene Gering, President of the 2012 Burnaby BC Seniors Games. "Our goal was to make these games the most memorable in their history and, by all accounts, they were just that. We could not have put on the games without the support of Chevron and the entire business community. We're truly grateful for their support."

Halloween on the Heights

The Heights Merchants Association has all kinds of tricks and treats up its sleeve for celebrating Halloween in a safe, fun environment. Trick-or-treat with Heights merchants, enjoy festive fireworks, or take a spooky train ride at Confederation Park's Burnaby Central Railway. Check out the association's website at www.burnabyheights.com for the latest details.



HEIGHTS MERCHANTS WELCOME TRICK-OR-TREATERS

Community Contact Line

(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.

Please contact us at Neighbourhood News, Chevron Canada Limited, Burnaby Refinery, 355 North Willingdon Avenue, Burnaby, BC, V5C 1X4.

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