

Neighbourhood News

SUMMER 10

A NEWSLETTER FOR OUR NEIGHBOURS



Refinery Fall 2010 Shutdown

FLUID
CATALYTIC
CRACKER
(FCC)



Refinery Fall 2010 Shutdown to Provide Important Maintenance

The Burnaby Refinery's third largest shutdown ever is scheduled to begin September 17 with an anticipated completion date of October 26. During this time, important maintenance will be conducted on two of the refinery's major processing units.

FCC and SRU Maintenance

Commonly referred to as the FCC, the refinery's Fluid Catalytic Cracker is a vital part of the refining process. "We'll be opening 21 vessels for inspection and cleaning 21 heat exchangers," said Dan Erickson, Turnaround Planner. "In addition to overhauling a critical compressor, we'll be replacing key components of the unit to improve its overall reliability and to reduce emissions – all part of our efforts to continually improve."

The Sulphur Recovery Unit, or SRU, is another essential component in the refining

process. Here, crews will open 13 vessels for inspection and 18 heat exchangers for cleaning. "We'll also be replacing the catalyst used in the unit and servicing the molten sulphur containment tank" said Dan.

Why are Shutdowns Important?

Just like your family vehicle, the refinery plans regular shutdowns in order to conduct routine maintenance and repairs as well as to upgrade and install new equip-

ment. These production outages ensure the refinery operates safely and efficiently and in the case of the FCC and SRU units, major maintenance turnarounds take place every five years.

What Might Neighbours Notice?

While regular production comes to a stop during the shutdown, the refinery continues to be a very active place. There will

CONTINUED ON NEXT PAGE

Manager's Message

JIM GABLE
GENERAL MANAGER



As the new manager of the Burnaby refinery, it's a pleasure to have the opportunity to introduce myself to our neighbours. I assumed this new role on July 1, following a transition period with Andrew Brewer, who has returned to manage another refinery in his native Australia and I look forward to continuing Andrew's open dialogue with the community on important issues.

Originally from Atlanta, Georgia, I'm moving to this beautiful area with my wife and two children. I've been with Chevron for twelve years having spent the past three in Louisiana managing a Chevron

chemical facility. My wife and I have heard what a welcoming community Burnaby is for families, and we look forward to meeting our neighbors at upcoming events, such as the annual Movie in the Park evening on August 29th.

My early impressions of the refinery's performance and culture are very positive. Over the past three years our employees and contractor partners have worked nearly three million hours without a significant injury. But we don't measure safety performance simply by metrics – it's defined by the impact of safe operations on all of us and our families. Those hours

CONTINUED ON NEXT PAGE

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।

FALL 2010 SHUTDOWN

be some elevated levels of flaring during the early phases of the shutdown as the refinery takes units offline and again when normal operations are restored following completion of the required work.

“An additional 250 specialized contractors will be on-site during this shutdown,” Dan adds, “As work will be going on 24-7, there will be more traffic moving along Penzance and Willingdon – particularly during shift changes but we always ask workers to respect our community to avoid using the side streets.”

There may be some unusual noises as the work unfolds, but Dan expects these to be minimal. Planning for this particular shutdown began in spring 2009 and minimizing any impacts on the neighbourhood has been given special consideration every step of the way.

MANAGER'S MESSAGE CONTINUED

represent over a quarter of a million trips home to family and friends after working safely.

Safe operations are how we measure success, and that's good news for our workforce and for the community. With the major planned maintenance turnaround this fall, the refinery continues to emphasize safety as our fundamental value. These turn-arounds are critical for our continued reliable performance, and we have been planning for over a year how to execute all of the planned work safely.

The Burnaby refinery has a long and proud 75 year history. The latest chapters have focused on being a strong operator, a good neighbour to the community, and a steward of the beautiful place we live in. In these challenging times for the North American economy, these are winning strategies and ones that I am excited to continue.

My whole family is delighted to be here. Since arriving, we've been out on numerous expeditions in the nearby parks and mountains. As a family that enjoys hiking, skiing and fishing, we are excited about enjoying all the outdoor activities this area has to offer.

As mentioned, we have the annual Movie in the Park coming up on August 29th, and I look forward to seeing you there. Enjoy your summer!



Like many Burnaby residents, Mechanical Draftsman Roy Moncey is spending his summer vacation playing tour guide. “The Olympics really seem to have given a lot of people the travel bug to visit here,” he remarked. “I’ve already had an American friend stay at my place and soon I’ll be showing friends from Australia and Switzerland around.”

Playing host to visitors is a role reversal for the ardent traveler. Roy has visited countries all over the world and even taught English in South Korea after obtaining a degree in physics from the University of Victoria. When he returned from Asia, he realized he needed additional credentials to broaden his employment options. Pursuing a mechanical engineering diploma at BCIT eventually brought the Vancouver Island native to Burnaby some 12 years ago.

Roy still lives in Burnaby, currently in the Metrotown area, and loves that his

Staff Profile

MEET ROY MONCEY

commute is so short. He also appreciates the many and varied restaurants along Hastings Street that he visits over his lunch break. He has been with the refinery for just over three years.

“My job includes drafting, document control, and being both a librarian and a historian,” he said. “Just this morning I was updating an original 1954 drawing that had been created in pencil!”

The drafting team provides an important service in a facility as technically complex as a refinery. One of the things Roy likes best about the work is that he gets to see how the refinery works. “If a structure or system is being modified, it inevitably comes by my desk... I really get to know what’s going on.”

Roy is proud of the work the refinery does. “The oil industry is often portrayed in a negative light, but I see it as responsible for the technological advancement of western civilization. Everything I see around me is oil-based: the phone on my desk; my pen; everything that contains plastic; even my shoes. Oil plays a part in so many aspects of our lives.”

Safety First

If you live within a couple of blocks of either Area 1 or Area 2 of the refinery, you may be familiar with the horns that are automatically activated every Friday at noon. These are on-site fire and hydrogen sulfide alarm horns for refinery employees and contractors that are tested weekly as part of a rigorous emergency preparedness program.

“We test these systems on a regular basis so we know they’re working properly as well as to familiarize our staff and contractors with them,” said Mike Ward, Fire and Safety Specialist. “There are two fire horns; one in the Area 1 tank farm and the other in Area 2 at the foot of Penzance that are tested simultaneously. Fifteen seconds later, the hydrogen sulfide alarms are tested simultaneously in 19 locations around Area 2. These horns are audible throughout the refinery.”

The horns are just one element of the refinery’s many safety systems. Staff and contractors are familiar with these and other alarms and are trained on what to do in the event of an emergency. The alarms are just one of many systems in place at the refinery designed to alert workers of potential emergency situations and to also help identify root causes.

We test these systems on a regular basis so we know they’re working properly

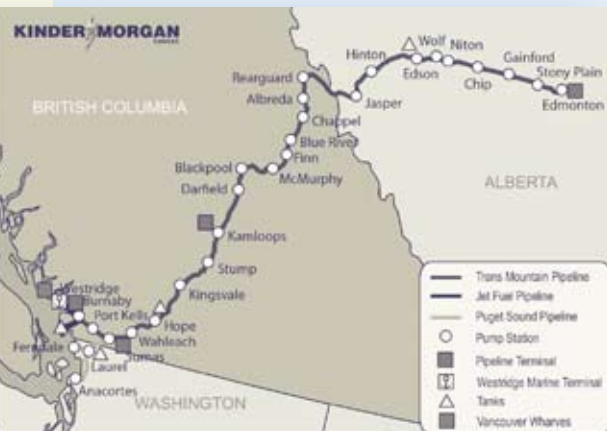
“The most important thing we can do is prevent accidents from happening in the first place through regular maintenance, equipment inspections and by anticipating potential problems,” added Mike. “Employees and external first response agencies including local fire and police also participate in emergency drills at the refinery to help prepare us for responding quickly during an emergency.”

Chevron Refinery Tech Talk

ONE IN A SERIES OF ARTICLES THAT WILL HELP YOU UNDERSTAND WHAT GOES ON AT THE REFINERY.

Crude Oil: Where Does it Come from and How Does it Get to the Refinery?

One hundred per cent of the crude oil processed at the Burnaby refinery comes from Alberta via pipelines. The crude is collected in tanks at a facility in Edmonton Alberta and is then pumped through the Trans Mountain Pipeline across the Rockies to the Kinder Morgan terminal at the foot of Burnaby Mountain. It is then directed into Chevron's pipeline that runs between the Kinder Morgan facility and the refinery, running for about 6 kilometers across North Burnaby. Once it arrives at Chevron, all of the crude oil is refined into finished products.



Trans Mountain Pipeline

Completed in 1953, this 1,150 kilometre line has the capacity to move approximately 300,000 barrels of product every day. A single drop of oil takes 10 to 12 days to travel the distance. There are multiple pump stations along the way which assist the product as it goes over the various mountain ranges between here and Edmonton.

The pipeline is one single line, but it is shared by various groups that “reserve space” in the system. The Burnaby Refinery will typically order a batch of 200,000 barrels of crude every two to four days to meet production needs. “There’s usually about 400 to 500 metres of other product in the pipe that follows our crude in the line that will mix with it. We buy this from whoever owns it as we have the equipment and hardware to separate and use it,” said Paul Gray, the refinery’s Value Chain Optimization Manager, one of a group at the refinery that matches crude oil deliveries with the plant’s needs.

Other products being shipped via the Trans Mountain pipeline include finished gasoline being marketed by other companies in Metro Vancouver as well as crude oil that is shipped offshore to international markets.

During regular operations, the Burnaby Refinery uses approximately 50,000 barrels of crude oil every day. “Ideally, we want our new batches of crude to arrive just as we’re running low on the previous delivery; it’s a fairly complex process,” said Paul. “We determine our production demand for the coming month, our colleagues in Calgary Alberta buy what we need on the open market from various producers, and it then gets transported at set times through the pipeline.”

Pipeline Maintenance

Chevron is responsible for the maintenance of the pipeline that runs from the Kinder Morgan terminus to the refinery. The underground line is regularly maintained to prevent corrosion and is externally coated to keep moisture away. An electric current within the line prevents internal corrosive activity. Chevron is also a member of BC One Call, a system that alerts the refinery any time excavation work is planned near the pipeline.

Periodic inspections are made on the line. Instrumentation-packed detectors, known as Smart Pigs, are inserted and travel along the pipeline to measure wall thickness. If the detector identifies any anomalies, workers excavate the line at that spot and do visual inspections. Blockages in the line are detected immediately as the volume of crude that leaves Kinder Morgan’s facility and arrives at the refinery is carefully monitored.

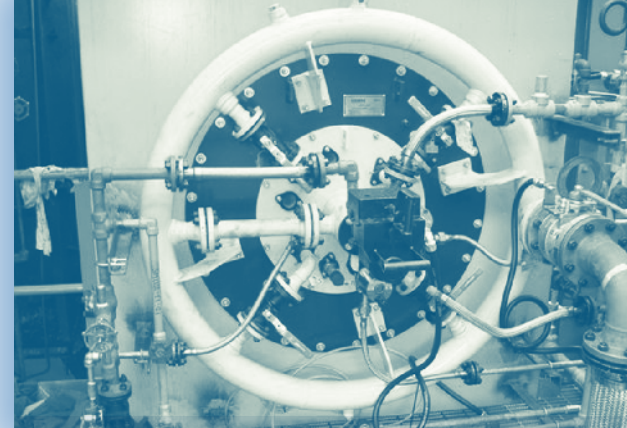


NEW TMX ANCHOR LOOP
PIPELINE UNDER CONSTRUCTION

Across the Fence



AREA 2
BURNABY REFINERY



NEW AND EFFICIENT LOW NOX BURNER

Refinery Area 2 Seepage Update

The Refinery continues to respond to the detection in late April of an oily substance in a gravel trench along a CP rail right-of-way below the Area 2 processing section.

The area of the refinery involved in this seepage has been part of a perimeter monitoring program since 2004 and the focus of increased testing since late 2009. Engineers and environmental specialists believe the problem may be the result of an accumulation of subsurface contamination on the refinery site over time and subsequent migration offsite through groundwater movement.

The BC Ministry of The Environment's Land Remediation Section is overseeing containment, recovery, assessment and long-term remediation measures that are being put in place to mitigate any impacts and to reduce further migration of this material from Chevron's property. Personnel at the rocky foreshore below the refinery are using soaker pads on a daily basis to recover any observed material. Previously observed amounts (5 to 7 tablespoons per day) are considerably reduced, which may be attributed to the current period of dry weather. Installation of the equipment and infrastructure for a network of extraction wells along the refinery's north perimeter is now complete and the system began operating on August 5th. Data will be collected to evaluate the performance of the extraction system in order to make further modifications as necessary. The refinery sewer line (used for process effluent and storm runoff water) is the current target area for source investigation.



Chevron is as concerned as the public and regulatory agencies with protecting the environment and is committed to conducting the required clean-up. For more information please contact the Refinery's Community Contact line at 604-257-4040.

New CAP Website

The Chevron Burnaby Refinery Community Advisory Panel (CAP) consists of representatives from the local community and refinery senior management staff who work together with an independent facilitator to identify and resolve issues of mutual importance and concern to neighbours. Since the CAP was first established in 1996, discussions focus primarily on refinery operations, safety and emergency responses, environmental issues, noise and odour. To help all neighbours understand the work of the panel, a new website has been created: www.chevroncap.com

Consultant Jocelyn Fraser was involved in the site's creation. "The site came about following a review we conducted of CAP to see if there were ways we could improve communication," she said. "We felt a website was a good way to keep both CAP members informed and broaden awareness of the panel in the community."

Turn to the CAP website for up-to-the-minute information on refinery developments. The site includes an operational status banner displayed prominently on the home page. Dates of shutdowns and other unusual activities such as flaring will be posted here. There's also a listing of current CAP members, a meeting schedule, recent meeting minutes, and links to pertinent technical reports as well as more information about refinery operations. The site also offers you the opportunity to submit questions and comments.

Boiler Refitted to be Greener

A retrofitted boiler #4 went online June 30 after being equipped with a new low NOx (nitrogen oxide) burner. The boiler, which is one of five on site that create steam to run various refinery processes, now has significantly reduced emissions.

"This boiler was originally built in 1988 and was a state-of-the-art low NOx design for that time," said Craig Jacob, the Operations representative for the project. "But burner technology has come a long way. The historical average NOx levels from this boiler have been reduced by about seventy percent!"

With the refit of boiler #4 and the installation of a new high efficiency #5 boiler, the refinery has been able to remove three older boilers that had higher levels of NOx emissions. "We're always looking to upgrade equipment and make improvements that will make the biggest difference first" added Craig. "The newer upgraded models make better use of the fuel they burn and provide better productivity."



#4 BOILER REFIT IS NOW COMPLETE

Community Corner

"How to Train Your Dragon"

Coming to the Big Screen at 3rd Annual Movie in the Park - August 29

In what's quickly become a local family favourite event, refinery neighbours will once again gather at Confederation Park to enjoy a fun outdoor movie screening of, "How to Train Your Dragon." This year's Movie Night takes place on Sunday, August 29.

The event gets underway at 5 pm with games and other fun activities with the movie starting at dusk. So bring your lawn chairs and blankets and enjoy this great community event including a food concession featuring M&M burgers, hot dogs, cold drinks and popcorn.



"All the entertainment is free with the food costs are kept reasonable because it's a community event," said Burnaby Community Connections Claudine Sousa, whose local non-profit organization benefits from the food sales. "Last year's event raised \$3000, all of which went to the Burnaby Christmas Bureau. Demand for the

Bureau's services was up 11 per cent last year, with over 5,000 people receiving gift baskets. Proceeds from this year's Movie in the Park will go to this same good cause."

For more information about this year's Movie in the Park, see the flyer enclosed in this issue of your Neighbourhood News.



BURNABY REFINERY
TANK FARM - 1958



South Burnaby Neighbourhood House Car Rally

Ladies and gentlemen, start your engines! The ninth annual South Burnaby Neighbourhood House Car Rally is set for Sunday, September 26. Funds raised from this year's event have been earmarked for the new Gilpin daycare facilities.

Teams of two or more are encouraged to sign up and test their mettle! Perhaps a local business will sponsor you! Participants start the rally with sealed envelopes containing instructions presented as riddles. Drivers and navigators need to keep an eye out on the landscape as they try to answer questions about things seen along the route. And, there are checkpoints including a BCAA safety inspection. It's all about accuracy rather than speed; there are penalty points for arriving at checkpoints too quickly!

Trophies and prizes are awarded to the first, second and third place finishers including a gift basket and a gasoline gift card from Chevron.

To find out more: 604-431-0400
www.sbnh.ca or info@sbnh.ca.

Hats Off Day Re-CAP

The summer got off to a great start with another successful Hats Off Day on June 5th. Colourful festivities took place all along Hastings Street between Boundary and Gamma. Festival goers enjoyed food, music, the Show & Shine car display and dynamic street entertainment provided by Vancouver Circus School members.

Things were rocking at the Hasting & Willingdon Chevron Station again this year, with free balloons, Dr. Strangelove performing for the happy crowds and Burnaby Community Connections offering hands-on fun for the kids.

"We loved the location – there was plenty of space and lots of people," said the society's Community Relations Manager, Claudine Sousa. "Kids loved the colourful crowns and tiara making crafts, complete with special 3D and jewel stickers that the children used to personalize their own creations."



POPULAR LOCAL BAND "DR. STRANGELOVE"
KEPT THINGS HOPPING AT HATS OFF DAY



(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.

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.

Ray Lord, MANAGER, PUBLIC AND GOVERNMENT AFFAIRS **604-257-4095**
Joanne Jamieson, COMMUNITY AFFAIRS REPRESENTATIVE, **604-257-5030**

Fax: **604-257-4093**
E-mail: cclrefineryinfo@chevron.com
www.chevron.ca