

Neighbourhood News

FALL 11

A NEWSLETTER FOR OUR NEIGHBOURS



Odour Management Plan



Odour Management Plan Making a Difference

In May 2010, the Burnaby Refinery adopted a formal Odour Management Plan (OMP) to help mitigate the potential for odours from the plant. The plan features a systematic approach and is now a requirement of the refinery's air permit issued by Metro Vancouver.

"We've always worked hard to manage potential odours and always investigate odour complaints when they're received, but with the OMP we're now doing things very methodically and consistently," said Manager, Health, Environment and Safety, Jill Donnelly. "Our primary goal is to minimize the impact of odours from refinery operations on the local community."

Identifying Trends

Part of the OMP is an annual review of the data collected from calls. This presents the refinery with opportunities to identify any trends and to make further improvements. "From the information collected between May and December 2010, the data sug-

gested there may be something affecting odours coming from the municipal sewers along Penzance Drive," said Jill. "We were able to identify a correlation between odour complaints in that area and the reliable

operation of a bleach injection system we use to effectively treat water being discharged from the refinery to the sewer system. We're currently improving this system and expect the project to be complete by the end of this year. The interim changes we've made have already led to a reduction in odour complaints."

"Helping Us Improve"

In cases like the example described above, OMP data can pinpoint a reason for odours that can be acted on. Other times, the data may not indicate a clearly identifiable trend. While all odour complaints are investigated and followed up on, reported odours can occur in scattered locations where no correlation can be found between the odour and refinery activity. "But, it does help us look into possible sources," commented Jill, "and that's important."

Manager's Message

JIM GABLE
GENERAL MANAGER



As fall settles in, I am sure I'm not the only one looking back at an enjoyable summer and the days we enjoyed with family and friends. Chevron's Movie Night on August 28 remains one of those memories of the past summer for many of us. I am sure I speak for everyone at the refinery when I say how proud we are to be part of what has quickly become a wonderful community tradition and how pleased we are to be able to use the occasion to support the great work done by Burnaby Community Connections.

The refinery's annual fall turnaround is currently underway – a period where we

conduct important maintenance on our equipment. Keeping the refinery running smoothly and safely with as little impact as possible on our neighbours and the environment during these events is a top priority for us.

At recent meetings of our Community Advisory Panel (CAP), neighbours have asked us about hydrogen sulphide and how we guard against leaks of this potentially dangerous gas. Another discussion involved learning more about our vapour recovery units which recover odours during product loading onto trucks,

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Safety at the Refinery

ONE OF MANY H₂S ALARMS LOCATED AROUND THE REFINERY

Managing the Risks of Hydrogen Sulphide

Hydrogen sulphide (H₂S) is a naturally occurring compound found in crude oil. It is a colourless gas and in sufficient concentrations, it can cause nausea and vomiting. Higher concentrations can also lead to unconsciousness and fatalities.

Protecting Workers and the Community from H₂S

The Burnaby Refinery is equipped with sensitive detectors that measure and monitor H₂S levels on a 24/7 basis. At extremely low levels (0.1 – 0.2 parts per million (ppm), H₂S has a strong sulphur smell, somewhat like rotten eggs. When it reaches concentrations of 50 – 100 ppm, H₂S becomes odourless; it is at these same levels that it causes headaches and nausea.

All workers in the refinery's process areas wear, and are trained to use, personal gas monitors that detect H₂S. Alarms on

these monitors activate if H₂S levels reach 5 ppm. Workers are trained to evacuate and secure the area immediately and to alert the plant's central control house by radio. Operators will then investigate and evaluate the situation.

Refinery-wide alarms (lights and horns) are activated any time H₂S levels reach 10 ppm. All non-essential workers are immediately evacuated to muster stations where everyone is accounted for.

"False alarms can sometimes occur as the detectors are very sensitive and can trigger even if someone knocks against them," said Safety Specialist/Trainer Brad Kuznik. "Once we've established a false alarm, we often continue with the evacuation procedure as a drill until the operators give the "all clear" message. We also practice hypothetical drills so we're always prepared."

When H₂S alarms are activated, operators scan every unit regardless of where the alarm originates. Workers don self-contained breathing air packs and check out the source of the H₂S. Once the units are checked, everyone is accounted for and the H₂S source

has been found and isolated, an all-clear signal sounds before workers can return.

"The risk of a large leak is very small," assured Operations Superintendent Dave Sharpe. "In my 25 years here, I have never seen a significant H₂S incident. If there was a significant leak, the refinery would immediately shut down the affected unit – or the entire plant if required."

The refinery's Sulphur Recovery Unit (SRU) is one area where H₂S vigilance is highest. "We take extra precautions at this site with additional detectors and inspections on the unit," said Technical Specialist Peter Wynne. "Alarms in the SRU may go off a few times a year, particularly when someone is taking a sample because 10 ppm of H₂S – the level at which our alarms are set for safety purposes, is a very low level."

Taking Risks Seriously

"It's important to take the risk of H₂S seriously," added Dave. "All our operators are trained in what to do if there's an alarm. We wear air packs when responding and the refinery is well versed in practising evacuations. Residents should feel confident that we're prepared to deal with these issues very effectively and professionally."

MANAGER'S MESSAGE CONTINUED

barges and ships. Both these topics are addressed in this issue of Neighbourhood News. We have also included an article on our Odour Management Plan and the ways it's helping us address neighbourhood odour concerns.

We are always aware that we operate within a busy community and do our utmost to be a good neighbour. Those efforts continue at the November 24 CAP Neighbourhood Meeting at the Confederation Senior's Centre, and I look forward to seeing you there.

vent odours and volatile organic compounds (VOCs) from escaping into the atmosphere.

The VRUs are used when gasoline and other products are loaded onto trucks and ocean-going vessels. When the liquids are loaded into tanks or the hold of a ship for transportation, vapours are displaced. Without the VRU, the emitted vapours would result in air emissions and potentially objectionable odours.

How a VRU Works

Each VRU has special charcoal beds that act as "hydrocarbon sponges." A large pipe collects the vapours as they're being generated during the loading procedure. The hydrocarbons are then captured in the VRU's charcoal beds and recovered back into the refinery's processing stream.

"VRUs are large, fixed pieces of equipment," said Blending and Shipping Supervisor Brian Robinson. "The marine VRU requires a 100 by 50 foot space and is designed to handle a loading rate of 11,000 barrels an hour. The tank truck loading rack VRU can accommodate a loading rate of approximately 8,000 barrels an hour."

Leading the Way

Chevron installed the Burnaby refinery's VRUs in the late 1990s and is still the first

and only petroleum product loading facility on Burrard Inlet with a marine loading vapour recovery unit.

"The original design and installation of these units was part of our ongoing effort to reduce emissions" said Brian. "It's the right thing to do from an environmental standpoint and as a good neighbour."

Analyst Rob Lazenby was the project engineer who oversaw the design and construction of the Marine VRU in the late 90's. "In addition to the reductions of odours, the VRU's also contribute to the safety of our employees working on the wharf and that's always a top priority."

Environmental Benefits

VRUs are used during the loading of products such as gasolines that have high vapour levels. Heavier materials, such as diesel, are not as volatile and do not emit large amounts of vapour. VRUs can only work with vessels that have the required deck fittings and are VRU compatible. Over the past few years, the refinery has been working with shipping companies to upgrade vessels that visit the Chevron wharf and as of this year, all vessels that currently load at the refinery's dock are fully VRU compatible.

Chevron Refinery Tech Talk

Vapour Recovery Units

The Burnaby Refinery has two Vapour Recovery Units (VRUs), one for the tank truck loading rack on Eton Street and the other at the marine loading dock located in the shipping and blending facility in Area 1. These important pieces of equipment are part of the refinery's ongoing effort to pre-

Across the Fence

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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Fall Turnaround

The refinery is in the midst of its annual fall maintenance turnaround. Just as it is important that your car receive ongoing maintenance, the same is true of the refinery. Turnarounds allow us to make sure all our equipment is operating safely and to make important upgrades for environmental and safety purposes.

"We hope neighbours won't notice anything; if you don't, we've done our job," said Impact Team Lead Nick Middleton. "Our effect on our neighbours is always on the forefront of our minds when we're planning these major events. As we will be working around the clock, there may be a minor increase in traffic during the switch to the night shift and we work hard to limit the amount of noise from any overnight work being carried out."

Refinery Achieves a Significant Safety Milestone

The refinery recently celebrated its fourth anniversary without any employees or contractors missing work because of an accident. "Safety is one of our core values and it means that everyone who arrives at work goes home in the same condition as they arrived," said Dave Hanning, who works with the refinery's

Health, Environment and Safety team. "It's indicative of the safety culture we have here. Achieving personal safety isn't possible without process safety. By maintaining our equipment, we're able to operate safely and that's good for our neighbours. We're constantly improving the safety processes we use and are always looking for ways to raise the bar to be even more effective."

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 24, 2011 from 7 to 9pm at the Confederation Seniors Centre, 4585 Albert Street, Burnaby.

This is our second annual Neighbourhood CAP Meeting and the evening will include a presentation about how the panel works and a review of CAP's activities in 2011. This is your opportunity to provide suggestions on topics for CAP discussions for the coming year and to ask questions of panel members. Neighbours will 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.



TANK TRUCK LOADING RACK VAPOUR RECOVERY UNIT (VRU) IN AREA 1

Community Corner

Movie in the Park

As the sun set over Confederation Park last August 28, the stars came out for Chevron's fourth annual Movie in the Park event. There was a wonderful turnout from the community, with an estimated 2,000 people enjoying food, entertainment and Kung Fu Panda 2 on the big screen.

"We were really happy to work with our partners as it makes the evening such a wonderful community gathering," said Joanne Jamieson, the refinery's Community Affairs Representative.

Burnaby Community Connections operated the food concession stand with proceeds supporting the Burnaby Christmas Bureau and the Camping Bureau. "It was a great success," said the organization's Executive Director Stephen D'Souza. "We appreciate



THIS YEAR'S
MOVIE IN
THE PARK
FEATURED SOME
SPECTACULAR
WEATHER!

Chevron doing something for the community that involves us; it takes philanthropy to the community level in such a fun way." The Heights Merchants Association also participated this year, offering Kung Fu Panda masks for kids to wear. When those ran out, there were tattoos and tattoo markers. "It was an excellent evening," remarked Acting Executive Director Teri Smith. "What a great way to bring the community together and wrap up the summer."

next two Saturdays, December 10 and 17, making the season bright for shoppers.

"Light Up the Heights is a great way to celebrate the holidays and it brings a festive and cheery atmosphere to our community," commented Heights Merchants Association Acting Executive Director Teri Smith. "It's something the community looks forward to every year."

Burnaby Christmas Bureau

The Burnaby Christmas Bureau helps low-income families in Burnaby have a brighter holiday season by providing toys and food gift certificates. Burnaby Community Connections, which runs the bureau, also provides Christmas hampers to low-income seniors. The bureau has seen a 33 per cent increase in demand over the past two years. You can help by making a donation. A number of local merchants and financial institutions have toy drop boxes and there's one at Brentwood Town Centre. Burnaby Community Connections also welcomes your generous cash donations, which are tax deductible. For your convenience, you can donate online at www.burnabycommunityconnections.com/christmas.shtml.



SANTA VISITS ANNUAL LIGHT UP THE HEIGHTS EVENT

Light Up the Heights

Celebrate the holiday season with your friends and neighbours by enjoying all the festivities planned for this year's Light Up the Heights, presented by the Heights Merchants Association.

The popular Tree Lighting Ceremony is scheduled for Saturday, December 4 from 3 to 5pm at Heights Fountain Square at Hastings and MacDonald. Look out for appearances from Santa and strolling carollers as well as a small Christmas market. Special holiday events will continue on the



TANK
CONSTRUCTION
IN AREA 1 - 1940

