

**Minutes of the Parkland Burnaby Refinery
Community Advisory Panel (CAP)
Wednesday, February 21, 2018
6:30pm – 8:30pm
Refinery Office (Boardroom) 355 North Willingdon Avenue**

PRESENT

Kathy Mezei, Rich Baerg, Joanne Smith, Davis Vaitkunas,

Parkland Representatives:

Dave Schick, Policy, Government and Public Affairs Manager; Kel Coulson, Policy, Government and Public Affairs Rep; Alex Coles, Refinery Manager; Jill Donnelly, Health, Environment, and Safety Manager; Peter Turner, Operations Manager

Metro Vancouver Representative:

Darrell Wakelin and Jason Mushtuk Regulatory Representatives from Metro Vancouver

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets: Helen Ward, Maziar Kazemi, Eileen Luongo, Al Mytkowicz, Michael Coyle, Aswinee Rath, Fraser Health: Dr. Aamir Bharmal

Guests:

CAP BUSINESS

1. Opening Remarks

- Welcome to CAP and updates to agenda – Catherine Rockandel
 - Announced retirement and thanked Rob MacLean for his contribution
 - CAP membership sub-committee will begin process to recruit new CAP member
- Introduction to new refinery manager Alex Coles – Dave Schick

Alex Coles shared some of his personal history with CAP. He is from PEI and has worked in refining for the past 27 years for independent Refining and Marketing companies. His approach to refinery operations is based on the approach of the most successful refineries which is to focus on safe and reliable operations. He believes in being open and transparent and looks forward to responding directly to CAP's questions

2. Parkland Updates

a. General Refinery Operations – Pete Turner

- The refinery continues to operate safely. There have been two disruptions. One was the result of a problem with an exchanger right before Christmas. To complete the repair, we took the plant down and brought it back up safely. The

- second was in January when the refinery experienced a power dip due to some electrical switching between circuits. The refinery was brought back up but it resulted in an air permit exceedance.
- On February 1st, the refinery started its largest turnaround. Today the flare stack was lifted down. The number of contractors on site peaked today; and over the course of the next couple of weeks the numbers will start to taper down. The refinery is sensitive to the effects on the neighbourhood, and is doing everything possible to minimize the impact to our neighbours.
 - Currently using the parking lot for contractor parking required for the turnaround. In March, once the weather warms up we will start to plant trees and do the final landscaping with input from impacted neighbours.
 - Collective bargaining with Unifor is completed and the contract is signed.

Comments and questions about the update:

Q1: Is the height of the stack changing?

A1: No, it is staying the same

Q2: How many years was the collective bargaining contract?

A2: It is three years, but that period is from 2016 so goes to 2019

Q3: What are all the flaggers for up the street at the corner?

A3: The flaggers are there to manage traffic during shift changes at 5am – 6:30am and 5pm – 6:30pm. We are using shuttles to get people to site and the flaggers help to manage traffic flows from parking lot to the refinery. We are also working with the RCMP and City of Burnaby to ensure that our employees and contractors obey traffic rules. There is traffic calming on Gamma and we are making sure the workforce is educated.

Q4: What will happen to the parking lot after the turnaround?

A4: The intention is to use it only for large turnarounds and on an intermittent basis when needed. We have found that the parking lot has been effective at getting people to stop parking on Penzance which has improved safety.

Q5: Is the parking lot going to be gated off? What is the plan, will the public be allowed to park there?

A5: Yes, the plan is for it to be gated and no, the parking lot is not open for public access

b. Parkland Transition – Dave Schick

- Some IT systems are still in transition from Chevron. Parkland is a more entrepreneurial company and staff are learning new programs and systems.

3. Presentation: CAP Q&A – Kel Coulson (See Attachment One)

A presentation in response to a number of questions raised by CAP prior to the meeting.

Comments and questions about the presentation:

Q6: Does the jet fuel from the refinery go by pipeline to the Vancouver airport?

A6: Yes

Q7: Is it correct that the Trans Mountain pipeline expansion is not necessary for this operation?

A7: Correct. The pipeline between Kinder Morgan and the refinery is not being twinned. We will continue to receive the same amount of sweet light crude.

Q8: Has the Emergency Notification service been discussed in the last two quarters with the City of Burnaby?

A8: No, the City of Burnaby's position has not changed. We can anticipate that once the longer term industry footprint on Burrard Inlet is determined including the pipeline expansion there will be a new opportunity to discuss the emergency notification system.

Q9: There was a mention of a new meteorological station on site. How big is it? Does it include humidity testing?

A9: It is a 100 foot tall tower on an approximately 5'x5' base. Humidity is one of the measures, along with wind speed, wind direction, temperature and atmospheric pressure.

Q10: How are refinery operations affected by weather?

A10: The new station will provide better information compared to the T23 station on Capitol Hill. This gives us a better idea of how weather conditions at the refinery influences emissions in the surrounding community. We will do this thru the use of a mathematical model.

Q11: Do you have a rendering or picture of what the parking lot landscaping will look like when complete?

A11: We have been working with residents and the landscape architect to plan landscaping. CAP can also attend those meetings. We can request a picture.

4. Metro Vancouver Update – Darrell Wakelin and Jason Mushtuk

Date: Wednesday, February 21, 2018

Reporting Period: November 2017 through February 2018

Overview of MV Update Content

Metro Vancouver has the regulatory authority specific to the discharge of air contaminants and management of non-domestic waste to sewer within the region. The Chevron Burnaby refinery has both an air discharge permit and liquid waste

discharge permit that we administer. Both the permits have extensive monitoring and reporting requirements.

Typically, our summary at CAP is a snapshot of some of the activities related to the administration of the permits conducted since the last CAP reporting period.

Topics can include:

- Site Inspections
- Summary of air quality complaints
- Odour surveys
- Response to specific Incidents (i.e. Chevron Advisories)
- Regional air quality management initiatives such as Bylaw development.

a. Refinery Notifications

Date	Level	Discussion
January 31, 2018	One	2018 Major Turn-Around Regularly planned, periodic maintenance procedure of our processing units. These shutdowns are required to carry out inspection, cleaning, maintenance and repair work to ensure safe, reliable and efficient operations. This work can only be done while the units are not functioning. Work is scheduled to begin Thursday, February 1, 2018 with a phased shutdown of specific sections of the plant. The current schedule calls for the work to be completed by approximately the end of March, 2018.
January 26, 2018 (100 Hrs)	One	Burnaby Refinery – Power Outage Power outage during the morning of January 26, 2018. The loss of power took some refinery units off line. Potential for some elevated flaring as work to resume normal operations over the remainder of the day. SRU exceedance of permit restriction of 5000 mg/m ³ . No exceedances of AQ objectives of 0.07 ppm SO ₂ recorded at any ambient stations.
December 19, 2017 (1100 Hrs)	One	DHT Work Completed and Start-Up. Refinery beginning start-up of the unit. Expected to take a couple of days. Some elevated levels of flaring may occur as the unit is being safely brought on line.
December 8, 2017 (0730 Hrs)	One	Controlled Shutdown of the DHT Unit Controlled shutdown of the DHT unit to carry out required repairs.
February 5, 2017 (0000 Hrs)	One	Burnaby Refinery Power Outage Loss of power took some refinery units off line following a power outage during evening of February 4 th . System to manage flaring is operational.

February 22, 2017 (1700 Hrs)	One	Controlled Shutdown of Crude Unit Controlled shutdown of the crude unit in order to carry out repairs to process piping. The shutdown is expected to be completed by evening of 23 rd . There is the potential for elevated flaring as the unit is shutdown and subsequently restarted.
May 23, 2017 (2100 Hrs)	One	Burnaby Refinery – Power Outage Brief interruption (~6PM) in external power supply (BC Hydro). Experienced elevated level of flaring. SRU acid gas to flare. Audible alarms in area 2 (radiant heat from flare/H2S at Process Unit). One complaint from Capitol Hill – see May summary below.
September 8, 2017	One	Burnaby Refinery – Maintenance Event Controlled shut-down of Poly and Penex units for planned maintenance between Sept 8 th to 30 th .

b. Air Quality Complaints

Month/Year	Complaints	Confirmed	Comments
Total 2015	41		Total complaints identified in Chevron's Odour Management Plan Annual Review submitted March 31 st .
Total 2016	53	45	Total received by Chevron from MV and public was 63. Analysis – September highest month (16% - 9 complaints) – Increase related to oily sewer 22 in 2016 vs. 4 in 2015.
Total 2017	35	27	Total complaints received by MV.
January 2018	1	1	1 oily sewer.
February 2018	3	3	2 oily sewer. 1 complaint of gas or crude oil odours – no location of odours provided by complainant.
Total to Date	4	4	

c. Odour Surveys

Date	Activity
2016 Total	Eight odour surveys documented for 2016.
2017 Total	Eight odour surveys.
January 2018	None
February 2018	None

d. Site Inspections/Meetings

Date	Activity
2017	8 inspections, 2 meetings with Parkland staff.
February 14, 2018	Meeting with Parkland staff to discuss permit amendment.

e. Liquid Waste Permit

Date	Activity
2017-11-28 2018-01-17	Metro Vancouver audit sampling of wastewater. No exceedance for any of the monitored wastewater parameters.
2017-11-19	Qtr. 4 self-monitoring report identified a CN exceedance. Root cause analysis is the same as noted in the 2017-07-31 report. Violation letter issued.
	<p>Elevated CN Study</p> <p>June 15th Amending document to authorize intermittent interruptions in sodium hypochlorite injection to conduct sampling and analysis of cyanide in effluent.</p> <p>chevron for cyanide study - ltr and permit page.pdf: http://orbit.gvrd.bc.ca/orbit/llisapi.dll/app/nodes/23343845</p> <p>The conclusion reached was that continuous bleach injection of their effluent resulted in detectable cyanide formation.</p> <p>2017-07-31 Chevron Waste Water Cyanide Investigation Report - 100010.pdf http://orbit.gvrd.bc.ca/orbit/llisapi.dll/link/23344127</p>

f. SOx Curtailment Events

Date	Activity
2017-12-07 0135 – 0230Hr 0850 – 0915Hr	Two SCE triggered based on SO ₂ readings above 190 ppb permit set point at T23. 1 Hr SO ₂ Objective of 70 ppb was exceeded during both events with hourly averages of 75.9 ppb and 123.6 ppb respectively.
2018-01-01 2200Hr	1 Hr SO ₂ Objective of 70 ppb was exceeded with hourly average of 70.8 ppb. This did not trigger a SCE.

<p>2017-03-20 0700 to 0800Hr 1700 to 1800Hr</p>	<p>Two SCE triggered based on SO2 readings above 190 ppb permit set point at T23.</p> <p>Interim 1 Hr SO2 Objective of 75 ppb was exceeded during both events with hourly averages of 82.9 ppb and 79.1 ppb respectively.</p> <p>Calm Stagnant inversion meteorological conditions. Chevron investigation did not confirm cause of missed alert but reported testing of system indicates it is currently working properly (June 1st email).</p>
<p>2017-10-28 0000-0100 Hrs</p>	<p>SCE triggered based on SO2 readings above 190 ppb permit set point at T23 (0030Hrs).</p> <p>Interim 1 Hr SO2 Objective of 75 ppb was exceeded with hourly averages of 112.8 ppb.</p> <p>AQ & CC investigation discovered that the SO2 analyzer had an upper level threshold set at 100 ppb, which caused concentrations above 100 ppb to be flagged as invalid. As a result Chevron would not have been aware that SCE trigger was met or been able to respond as required in their permit. AQ report issue has been resolved.</p>

Comments and questions about the update:

Q12: What causes the oily sewer smell from some manhole covers?

A12: The smell is localized around Penzance. Some manhole covers have positive pressure that causes the smell to emit from the holes in the covers. The smell is caused by micro-organisms that result from treated water from the refinery mixing with City sanitary sewer. The refinery uses a bleach injection system to manage odour in the effluent leaving the refinery.

Q13: Are some of the things you are doing in the refinery turnaround as a result of new regulations?

A13: Yes, they prepare the refinery to meet the new Tier 3 federal government requirements to reduce Sulphur.

5. 2018 CAP Meeting Schedule – Catherine Rockandel

- May 16, 2018
- September 19, 2018
- November 21, 2018 (Public Meeting)

CAP brainstormed some potential topics for discussion at upcoming meetings.

These included:

- An overview of the different size and capacity of marine vessels that come to the refinery and the use of the vapour recovery unit
- Amount of tax the refinery pays and the economic impact of turnarounds for the local economy – turnaround trivia
- An update on the shore based marine response and the massive increase in marine response budget (see November 2017 CAP notes and presentation)
- An update on environmental initiatives and co-processing at the refinery.

ADJOURNMENT: Meeting adjourned at 8:30pm