

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel (CAP) Meeting
Wednesday, May 20, 2015
7:00 – 9:00pm**

Refinery Office (Conference Room) 355 North Willingdon Avenue

PRESENT

Maziar Kazemi, Al Mytkowicz, Pat Connell, Rich Baerg, Helen Ward, Rob MacLean, Cathy Argue, Kathy Mezei, Michael Coyle, Eileen Luongo

Chevron representatives:

Dave Schick, Policy, Government and Public Affairs Manager; Jessica Wolford, Policy, Government and Public Affairs Rep; Chris Haswell, Operations Manager, Steve Parker, Refinery Manager; Jill Donnelly, OE Special Projects Manager; Kate Groves, Health, Environment and Safety Manager

Metro Vancouver Representative:

Larry Avanthay, Regulatory Representative, Metro Vancouver
Darrell Wakelin, Regulatory Representative, Metro Vancouver

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets: Joanne Smith

CAP BUSINESS

1. Opening Remarks

- Catherine Rockandel welcomed CAP members. She provided an overview of the agenda and invited CAP members to introduce themselves.
- Dave Schick provided a more formal welcome to Jessica Wolford. Jessica has recently joined Chevron after working in the Provincial Government in transportation.
- Jill Donnelly announced that she has taken on a new role at the refinery. Kate Groves will be the new Health, Environment & Safety Manager and attending CAP meetings in Jill's place.

2. Chevron Updates

a. General Refinery Operations – Steve Parker

- Steve reported that the recent turnaround was one of the largest in the refinery's history in terms of replacement and repair work. Chevron works to high internal standards. The turnaround was completed on time, without incident, and with no injuries. There were no significant complaints as Chevron worked to manage traffic, odour and noise.

- Chevron is leading all other oil and gas companies and industry in terms of overall safety
- Steve said that Chevron continues to learn from events such as the November 2014 unplanned non-routine release of Naphtha into a containment area. Naphtha is a product of the refining process. Although the odour was unpleasant, it was concluded that naphtha levels in the community did not present a health concern. Chevron issued a Level One advisory to regulators.

b. Area 2 Seep Update – Jill Donnelly

- Jill reported that the seep has continued to be stable since 2011.
- The technical team led by Chris Boys continues to collect data at the foreshore and work on final remedy.
- The Ministry has reviewed the preliminary design concept for the final remedy with an anticipated 2016 installation.
- Some dissolved phase has been found outside the barrier. Dissolved phase results at the Foreshore are: minor amounts of hydrocarbons that are at such low levels as to have no effect on the environment.
- Chris Boys will be coordinating tours at the beach. There are three dates that correspond with low tides. Catherine Rockandel will send out a meeting request for CAP members to indicate which dates work best for the tour. The options are Wednesday, June 3 from 1 - 2:30pm; Thursday, June 4 from 2 – 3:30pm; and Friday, June 5 from 3 – 4:30pm

Comments and questions about the update:

Q1: When was the last foreshore environmental testing completed for leachate and oil contamination? What were the results? When will those results be made public?

A1: See above for dissolved phase results. Also, no oil has made it past the barrier. The last test was in March 2015. They are done a couple of times a year. Once the Ministry reviews the reports they are posted to the CAP website.

Q2: Are you intending to leave the forty-four perimeter wells in place as part of the final remedy?

A2: Yes, they will be staying in place

3. Presentation (See Attachment One)

BC Fuel Market and Confederation Park Update - Dave Schick

- Dave provided an overview of the BC fuel market indicating that one quarter of British Columbia’s transportation fuel is produced at the refinery.
- Chevron is the leading retail service station network in the province.

- Chevron also provides diesel in Coal Harbour through a new floating facility installed in 2010. (This facility was upgraded/rebuilt for 2010. The barge has been in operation many years.)
- Both crude and finished product travel to the refinery in the same Trans Mountain pipeline from Edmonton. The Trans Mountain pipeline also supplies Washington State refineries with crude along with tanker ships from Alaska.
- In 1982, Chevron built the Hatch Point Fuel Terminal on Vancouver Island. It is currently being upgraded to blend ethanol. Since 2010 the facility has been providing biodiesel blends on Vancouver Island
- Dave also provided an update on the Confederation Park pipeline. Routine maintenance and assessment happens every year. There's quite a bit of activity along the Chevron right-of-way. Access to parts of the park will be impacted. We will be working throughout the summer. There will also be some brush clearing.
- Dave commented on the new YVR jet fuel terminal and pipeline development on the south arm of the Fraser River and discussed impacts to the Burnaby Refinery.

CAP questions and responses about the presentation:

Q3: What is shipped to Cherry Point in Washington State?

A3: A small amount of crude relative to their requirements goes to Cherry Point via the TransMountain pipeline

Q4: How many tankers travel from Alaska to Washington State each year with fuel?

A4: Approximately 1200 tanker ships a year.

Q5: What are the Esso and Suncor facilities on Vancouver Island?

A5: Tank farms

Q6: Does Kamloops have a small refinery?

A6: The only other refinery is a small Husky facility in Prince George. Kamloops is a shared storage terminal between Suncor and Imperial Oil. They also blend some ethanol

Q7: Where is the right of way in Confederation Park?

A7: It is the blue line on the slide. The wide part of the path

4. CAP Q&A

Q8: When will Chevron be releasing its full emergency management plans to the public and the City of Burnaby, including but not limited to pipe leaks; tank farm and refinery explosions, fires, and chemical leaks; and transportation spills or incidents related to ships, rail and trucks? Why hasn't this information been made public yet?

A8: Chevron has a security team that prepares plans and evaluates security vulnerabilities and develops responses to a broad range of scenarios. This information is not made public as it could potentially allow individuals to circumvent security.

Q9: Does government get updates?

A9: Yes, they get updates on fire and safety response protocols.

Q10: - How many times if any has refinery/marine terminal been higher than MARSEC One?

A10: Twice, during the 2010 Olympics and during May 2014 when protestors were at the truck terminal

Q11: What is MARSEC?

A11: MARSEC stands for Marine Security. MARSEC levels are designed to easily communicate pre-planned responses to increased threat levels.

- MARSEC Level 1 — Appropriate security measures under normal operating conditions.
- MARSEC Level 2 — Increased security measures maintained for a heightened security threat or incident for a limited period of time.
- MARSEC Level 3 — Additional security measures when a security threat or security incident is probable or imminent.

Q12: Where are the MARSEC levels posted?

A12: Chevron does not usually post the MARSEC levels

Q13: I have seen a Securitas vehicle parked in the North Delta at Eton area, is this for Chevron?

A13: Chevron does use Securitas and they often patrol neighbourhoods and may check for odors.

Q14: Given the recent spill of bunker fuel in harbor that was not related to Chevron what if any discussions have occurred about marine operations, safety initiatives or communication?

A14: There have been discussions about ECOMM to coordinate response because not all municipal government agencies use the system. Finding a way to coordinate communication is of interest to Chevron and local government

The Province is working on land base spill response and working with industry. We will keep you posted as it evolves.

Q15: During the shutdown, when you say no incidents does that mean no leaks?

A15: Correct

Q16: There was a big three part crane on site during the shutdown, what was that used for?

A16: It was used to replace large vessels on Cat Cracker (FCC). It is not owned

by Chevron and was rented for the turnaround work.

Q17: What was the fencing along Penzance during the shutdown?

A17: It was used to manage contractor parking to ensure safe pedestrian access to the park

Q18: This ECOMM system, does Burnaby use it?

A18: Burnaby Fire Department does not use it.

Q19: Is the refinery affected by new developments at Roberts Bank or the potential new YVR fueling storage development?

A19: When markets change that can impact the refinery.

5. **Metro Vancouver Update: Larry Avanthay**

Date: Wednesday May 20, 2015

Reporting Period: February through April 2015

Air Quality Complaints

Month	Complaints	OMP Evaluation
January 2015	2	
February 2015	0	
March 2015	7*	
April 2015	3	
Year to Date 2015	12	

* Complaint summaries Includes an investigation at 2700 Blk Pandora St. in Vancouver in which resident identified Chevron as the source of “diesel” odour. Investigation did not support refinery as likely source due in part as it was during the maintenance turn-around when major process units were not operating. No other complaints were registered nearer the refinery associated with this particular incident.

The March total also includes two complaints from the Reed Point Marina in Port Moody where reports of an odour resembling “muriatic acid” were identified. Chevron were included in the investigation follow-up as initial reports identified a westerly wind. Also muriatic acid can be used for cleaning scale so refinery contacted to determine if they were possibly using this material during their turn-around activities. Investigation was unable to confirm a specific source, however, believed to have been a source nearby Marina as odour was present during early morning with dead calm wind conditions. Reportedly when there was any noticeable breeze the odour quickly dissipated.

Odour Surveys

Date	Activity
March 17, 2015	Joint odour survey with Chevron staff in response to petroleum odours identified by resident living above refinery. Crude oil type odour was confirmed immediately adjacent to fence line on Penzance Drive. Odour was attributed to hydrocarbon in pump pad area which was cleaned-up.
Monday, March 23, 2015	Odour survey conducted in neighborhood adjacent to Chevron Tank Farm (Area 1) in response to odour complaint in Vancouver.
Monday March 23, 2015	Joint survey of the foreshore perimeter groundwater-monitoring wells with Chevron Staff. No discernible hydrocarbon odours identified during walking tour of Easter/Western seep area conducted during low tide. Cool rainy day but no discernible hydrocarbon odours during survey.

Reported Air Quality Discharge Exceedance

There were a number of one hour SO₂ exceedances reported for the SRU (Emission Source 22R) in April with the majority attributed to a “catalyst sulfiding” protocol. Review of reports is underway and formal response to follow. Initial indication is considered a minor non-compliance according to CEMS Guidance.

Reported Liquid Waste Discharge Permit Exceedance

No exceedances were reported by Chevron for the 1st Qtr. 2015 reporting period for the self-monitoring of the sewer discharge from their operations (January, February and March 2015)

Miscellaneous Items

Proposed Interim SO₂ Objective Update – After Consultation

- Report went to Climate Action Committee on March 26, 2015 – Committee requested additional analysis on the proposed limit for their next session.
- Report to Climate Action Committee on April 22, 2015 with additional analysis of interim SO₂ Objective. Report was adopted by Committee and was recommended to be submitted to the Board.
- Report was on GVRD Board consent agenda last Friday (May 15, 2015). The 75 ppb SO₂ one hour average was approved as the interim objective replacing the 174 ppb. Interim objective will be reviewed once the Federal Standard is developed and adopted (70 ppb). Initially the Interim SO₂ Objective it will be applied to solely to new and/or significantly modified sources. MV has also committed to work with the regional health authorities to develop a real-time alert system for the region using the SO₂ new limit. This work will begin later this year.

SO2 Projections

This is an update to the presentation at the last CAP meeting on Proposed Interim SO2 Objective by representatives of Metro Vancouver Air Quality Department. Slide 12 of the presentation identified a 24% projected reduction in SO2 emissions from refinery. The projection was based on numbers from the Emission Inventory completed by Metro Vancouver in 2005 and 2010.

On further investigation of the Emission Inventory SO2 data and Chevron operating conditions, the reduction was a result of higher baseline emissions in 2005. The higher baseline was almost solely due to higher SO2 emissions from the SRU during Chevron 2005 scheduled maintenance work versus any process changes or reductions at the facility in 2010 or 2015.

Municipal Ticket Information (MTI) Issuance

Chevron Canada Limited was issued a ticket on April 30, 2015 for an offence under the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008, related to the-unauthorized discharge of air contaminants to the atmosphere. The ticket was not contested by Chevron who paid the fine amount of \$1000. This was the first MTI issued to the Chevron Burnaby refinery. This incident occurred in November of 2014 during a period in which partially refined petroleum naphtha was released to an impoundment basin within the refinery resulting in odour complaints. A site inspection and investigation identified the air contaminants released were not authorized under the terms and conditions of Chevron's air quality discharge permit GVA0117 or the Bylaw 1082.

CAP questions and responses about the Metro Vancouver update:

Q20: Since the SO2 Objective applies solely to new and/or significantly modified sources does this mean Chevron does not have to reduce SO2 to meet the new Objective?

A20: The interim objective does not apply to Chevron unless they undertake significant modification to the facility. In the interim, we have met with Chevron to develop a plan to evaluate their current emission levels and prepare for the objective that will be established when the federal objective has been finalized.

Q21: Why are there strong odors between 6am and 9am?

A21: We can speak to meteorological conditions that would influence odours in the community and Chevron can address operating conditions. Odours could be related in-part to the atmospheric conditions at certain times of year. Periods of atmospheric inversions can result in higher incidents of odours due to poor atmospheric mixing and stagnant air. Time of day and seasons can also have an effect as we typically have calm conditions in the early morning hours but once we get heating of land by the sun we typically get a land/sea breeze by mid-morning with westerly or north westerly winds that again disperses stagnant air.

Q22: Who decides the amount of the ticket?

A22: The amount of a ticket is specified in the GVRD Ticket Information Utilization Bylaw No. 1050 (link provided below)

Q23: What other options are available to you and what is amount of fine?

A23: The other punitive option for this offense is to prosecute. Under the GVRD Air Quality Management Bylaw 1082 the maximum penalty is one million dollars. The courts would determine the penalty if a company is deemed convicted of the offence.

Q24: Could individuals be issued a Metro Vancouver ticket?

A24: Yes, if an individual is responsible for an industry, trade or business that caused the incident. Our Parks Department uses a similar process for enforcement within the regional parks.

Q25: Could Metro Vancouver decide to prosecute?

A25: Yes, that is our role to make a recommendation.

Q26: Are there any health effects from exposure to Naphtha?

A26: In this particular incident there were no reports of long-term effects, however, witness statements did identify short-term exposure health effects, which included head-aches and nasuea.

Q27: In terms of the report from the marina of a muriatic acid smell, is Chevron refinery the first place you contact?

A27: No. The initial reports and review of wind data at our stations indicated a westerly wind, however, with more information including speaking with individuals who witnessed the odour the conditions were described as being dead clam with no discernible winds. The refinery would not be a typical source of the odour described but was included since it was in the midst of a maintenance turn-around so wanted to account for any unusual activities that maybe conducted at the facility that might account for an odour of this type.

Q28: Can you give us an example of the type of facilities you might follow up with in your investigation into odor complaints?

A28: Since the muriatic acid smell was reported in Port Moody we checked a number of nearby facilities around the inlet including a concrete batch facility as muriatic acid was reported to be used as a release compound for concrete forms. A source for these particular odour complaints was not determined but was believed to be an activity in the immediate vicinity of the Marina.

Additional Reference Materials

Proposed Interim SO2 Objective Update – Report to GVRD Board (See Section E , 2.1)	http://www.metrovancouver.org/boards/GVRD/RD_2015-May-15_AGE_REVISED.pdf
Emission Inventories and Forecasts (Includes link to 2010 Emission Inventory)	http://www.metrovancouver.org/services/air-quality/emissions-monitoring/emissions/emission-inventories/Pages/default.aspx
GVRD Ticket Information Utilization Bylaw No. 1050, 2006 See Schedule C for Bylaw for Fine Types and Amounts	http://www.metrovancouver.org/boards/Bylaws1/GVRD_Bylaw_1050-Unofficial_Consolidation.pdf

6. Review of Agenda and Presentation Schedule: Catherine Rockandel

- CAP discussed the options developed at the public meeting and confirmed that the focus of the September 16 CAP meeting would be the economics of the refinery including contributions to taxes and community, and policies.
- An update on Confederation Park would be provided in September.
- CAP shared that a community member was interested in exploring the idea of restoring access to the beach section below the park
- November 17th Public Meeting would focus on Emergency Notification and Preparedness

ADJOURNMENT: Meeting adjourned at 8:50 pm