

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel (CAP) and Annual Public Meeting
Wednesday, February 24, 2016
6:30 – 8:30pm
Confederation Seniors Centre**

PRESENT

Al Mytkowicz, Joanne Smith, Maziar Kazemi, Pat Connell, Kathy Mezei, Eileen Luongo, Aswinee Rath, Matthew Hartney

Chevron representatives:

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

Metro Vancouver Representative:

Larry Avanthay and Darrell Wakelin, Regulatory Representative, Metro Vancouver

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets: Rich Baerg, Helen Ward, Rob MacLean, Michael Coyle, Davis Vaitkunas

Guests: Rick Spence, Chevron Transportation Supervisor; Jason Mushtuk, Metro Vancouver; Three UBC Faculty of Applied Science students;

CAP BUSINESS

1. Opening Remarks (See Attachment One)

- Catherine Rockandel welcomed CAP members and guests to the meeting. She provided an overview of the agenda and invited CAP and Chevron management in attendance to provide introductions.
- Catherine introduced the process for CAP to ratify potential new members. The new members were asked to wait outside the meeting room. CAP then discussed the CAP Membership Sub-committee's (comprised of Maziar Kazemi, Helen Ward, and Rob MacLean) recommendation that Aswinee Rath, Matthew Hartney, Davis Vaitkunas be accepted as CAP members. After discussion the CAP community (6 members present and 2 CAP Sub-Committee members not present, but who had recommended the new members) voted in favor of the recommendation. Chevron abstained from voting.
- Of note, there was discussion regarding which CAP members can vote. Recommendation for CAP Subcommittee to include this in the revised Terms of Reference.

2. Chevron Updates

a. **General Refinery Operations** – Steve Parker

- Steve stated that the last two years have been the safest on record and the refinery has had the lowest number of environmental incidences as well. The plant has had exceptional mechanical reliability.
- In February there was a small turnaround of a few of the processing units, which is planned to finish near the end of the month.
- The big focus in Chevron is on process safety. Chevron is spending over 50 million this year on project spend to improve reliability and process safety.
- From the start of 2016, there was an environmental event, an exceedance of FCC Opacity over one hour due to a small release from the FCC.
- There were also two small releases which were contained and reprocessed and as such were managed within the facility.

Comments and questions about the update:

Q1: Can you tell us more about the emission from the cat cracker?

A1: Metro Vancouver will be providing a lot of detail about this in their report later in the meeting

Q2: The leak in the sewer, how did that occur? Is it similar to the other historical sewer leak?

A2: A small amount was detected leaking into ground. The soil will be excavated and remediated. The water was then redirected into the effluent treatment plant. Chevron will be doing further repairs on this sewer.

Q3: Is there a program for inspections of oily water sewer system? How often do you inspect

A3: Chevron will provide additional information regarding frequency of inspections at the next CAP meeting

Q4: Was the leak due to the small earthquake we had

A4: No

b. **Confederation Park** – Dave Schick

- Chevron has determined that some pipes that run through Confederation Park need to be replaced. The permitting process will occur in April/May, and we expect work will begin in the early summer. Residents will continue to have full access to the park, similar to the access provided in summer 2015.

Comments and questions about the update:

Q5: Is it on side of park by water?

A5: Yes, our right of way is located in the section of Confederation Park that sits on the north side of Penzance.

**3. Presentation Truck Loading Rack Operations – Rick Spence
(See Attachment Two)**

Comments and questions about the presentation:

Q6: If truck traffic is bothersome for example horns, speeding, what should we do?

A6: You can take license plate number but if you didn't catch it call or drop by the Transportation and Operations office as soon as possible with the time and location. Rick's contact number is 604-257-4966. We can then look at the gate entry time on our computer system and determine what driver is responsible. Some of the possible responses can include suspension of loading privileges.

Q7: How do additives get to refinery?

A7: Gasoline additives are trucked in. The additive Techron is from Chevron in Oregon, and the generic gasoline additive is from Alberta. The Chevron Terminal has a license from the BC Government to dye or mark gasoline or diesel fuel. This red dye is injected into the fuel that is purchased by some of Chevron's commercial customers.

Q8: Why do you have to mark fuel with red dye?

A8: Some commercial customers purchase dyed fuel. This dyed fuel is typically used in "off road" situations such as marine fuels, farming, and road building. The dyed fuel is exempt from road tax charges, which is the reason for the red dye. The terminal has to account for litres of red dye used and litres of dyed product sold on a monthly basis.

Q9: When Chevron says they have zero recordable injuries, what is defined as a recordable injury?

A9: The US OSHA (Occupational Safety & Health Administration) has extensive regulations surrounding what is defined as a recordable injury, more information can be found at: <https://www.osha.gov/recordkeeping/>

Q10: How many miles do your trucks drive?

A10: Chevron's local drivers drive approximately 5,000 km per month.

Q11: How many trucks per day?

A11: There are approximately 80 loads per day.

C12: You should know that the trucks often take the corner at Willingdon and Eton quite fast.

A12: We need to know this so please record the time and place and/or license plate number and communicate that to us as soon as possible so that we may address and correct those behaviors.

Q13: Is there no extra crude coming in by truck these days?

A13: No, the NEB intervened regarding pipeline allocation requirements and

Chevron's needs are currently being met through the pipeline.

Q14: Do you still have a video camera leaving and coming on site? I think this was used a year ago to spot an open hatch

A14: Yes we do have the camera but it is not used to inspect hatches as the trucks are bottom loaded and the hatches are not opened. In the instance you are referring to a truck had been at a tanker maintenance facility and the hatch had been left open. It was spotted as it arrived on site.

Q15: Does your safety record include contractors?

A15: Yes, the whole workforce is included in safety statistics.

Q16: Do the truck contractors have Chevron logos on their trucks?

A16: No, they do not.

Q17: What other products do the trucks haul?

A17: Asphalt, propane, sulphur.

Q18: What is the largest truck the facility can handle?

A18: 57,000 kg or 140,000lbs. Mandated in BC to eight axles.

Q19: I am noticing that the pavement at Willington is in good shape and not degraded due to the truck traffic. Does Chevron contribute to maintenance of roadway?

A19: No this is the responsibility of the municipality.

Q20: I have heard that empty trucks are more dangerous than full ones, is this true?

A20: Trucking by nature has its risks, trucks full of product or empty with residual product/vapors in them do have risks, and both are treated as high-risk activities (evidenced by special licensing needs, etc to drive them).

4. Refinery Open House – Jessica Wolford

- Jessica provided an overview of the planning stages for a potential community Open House being considered by Chevron. She asked CAP for ideas for activities. Chevron is considering information booths and bus tours.

Comments and questions about the update:

Q21: When is it planned for?

A21: We are unsure at this time. As the planning process evolves, we will know more.

5. CAP Q&A

- The CAP membership Sub-committee provided the Membership TOR and media protocol for review. CAP was asked to review and be prepared to discuss at the next meeting.

6. Metro Vancouver Update – Larry Avanthay

Reporting Period: November 2015 through January 2016

Overview of MV Update Content

Metro Vancouver has the authority to regulate the discharge of air contaminants and non-domestic waste to sanitary sewer within the region. The Chevron Burnaby refinery maintain 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 is a snapshot of some of the activities 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)
- Miscellaneous regional air quality management initiatives

Air Quality Complaints

Environmental Regulation and Enforcement maintains a 24Hr complaint service. On-call officer 4:00PM to 11:30PM week-days, service on week-ends 07:30 to 11:30PM, an Off hour answering service takes calls between 11:30 PM to 07:30AM and forwards to on-call officer the next morning. Report identifies air quality complaints reported to Chevron from public agencies and which were investigated.

The air discharge Permit requires Chevron to maintain an Odour Management Plan – initially approved by MV in May of 2010. Chevron submit monthly summaries of their investigations into any odour complaints and actions taken, if attributed to Chevron. Annual performance review submitted (March 31st) summarizing the number, nature, and management of odour complaints that occurred in the past year. The review also includes: trend identification, changes in procedures and/or equipment, changes to the OMP, and recommendations for ongoing improvement. Revised OMP issued March 29, 2015.

Month/Year	Complaints	Confirmed	Comments
Total 2012	78		
Total 2013	70		
Total 2014	61		
Dec 2015	2	2	
Total 2015	30	24	Total to be confirmed in Odour Management Plan report submitted at end of March by Chevron.
January 2015	3	3	
Total 2016	3	3	

Odour Surveys

Date	Activity
Wednesday January 27, 2016 (1515 to 1546Hrs)	Odour survey conducted in neighborhood adjacent to Area 1. A public odour complaint had been registered earlier in day describing strong petroleum odour at McGill Park and again later on Heights Trail adjacent to tank farm.
Thursday February 18, 2016 (1534 to 1620Hrs)	Odour survey conducted in neighborhood adjacent to Area 1.

Site Inspections/Meetings

Date	Activity
Friday, December 4, 2015 Site Inspection	Meeting conducted with Chevron Environmental staff to review FCC opacity exceedances. Review of continuous opacity monitor (COM) trends and current readings and Chevron investigation into incidents. Tour of Capitol Hill neighborhood immediately above refinery conducted prior to meeting to check for any visible signs of deposits related to catalyst release.
Thursday, December 10, 2015 Site Inspection	Meeting arranged with Chevron Environmental and FCC Process engineers to review their investigation findings (December 9 th Incident Report) into the opacity exceedances and next steps.

Reported Air Quality Discharge Exceedance

Date	Refinery Unit/Exceedance of Permit Restriction: 20% Opacity
December 1, 2015	FCCU ES19R/ Total 2 – One Hour exceedance (28 & 27%)
December 3, 2015	FCCU ES19R/ Total 1 - One Hour exceedances (21%)
December 4, 2015	FCCU ES19R/ Total 1 - One Hour exceedances (29%)
January 2, 2016	FCCU ES19R/ Total 1 - One Hour exceedances (25%)

Comments and questions about the update:

Q22: What is it that was being exceeded?

A22: Opacity. The FCCU has an opacity monitor that continuously measures the emissions.

Q23: What is opacity?

A23: It is a measure of the amount of visible emissions from the stack.

Chevron: Opacity is a measure of the amount of light that can pass through the stack.

Q24: What are the visible particulate emissions?

A24: It is a fine, silica like dust that is present in the catalyst and is emitted from the stack.

Q25: You mentioned that you did a site tour after the exceedance; what day was that?

A25: On December 4, 2015, prior to my site inspection, I toured the neighborhood directly above the refinery to see if there was any obvious signs of a deposit related to the recent opacity excursions.

Q26: Did you find anything?

A26: I didn't identify signs of a deposit. I believe Chevron reported they had also conducted their own observations for deposits and maybe able to comment on their findings?

Chevron: I believe our findings were similar to what Metro Vancouver reported.

Q27: So the new system was creating more fines than expected?

A27: The new system had a blockage which was causing fines to build up and be released at once, the new system does not impact generation of fines material. The blockage is now cleared.

Q28: Is the silica that is released like talc? What is the silica?

A28: It is fine sand-like material.

Q29: Is the higher level of opacity affected by inversions?

A29: Chevron: No

Q30: How far does the silica particulate get distributed?

A30: Metro Vancouver does not currently monitor particulate matter at the station nearest the refinery (Capitol Hill). We are currently evaluating our monitoring needs for particulate matter at the stations nearest the Chevron facility.

The refinery is not the only source of particulate matter in the area as residential wood burning can be a significant source.

There are other sources including particulate from combustion from diesel engines, motor vehicles, and marine sources. Dust generated from road traffic and construction sites can be significant sources especially during extended dry periods.

Q31: Within this region, what is the best comparison to the refinery in regards to amount of particulate matter?

A31: There are different types of particulate matter being measured based on physical size. Metro Vancouver conducts an emission inventory every 5 years that compares sources. A link will be provided in the minutes to the most current report, which was completed in 2010. Metro Vancouver also have Fact Sheets for various air contaminants including particulate matter that we will also include links to for future reference.

Metro Vancouver Emission Inventories & Forecasts:

<http://www.metrovancouver.org/services/air-quality/emissions-monitoring/emissions/emission-inventories/Pages/default.aspx>

2010 Lower Fraser Valley Air Emissions Inventory and Forecast and Backcast:

<http://www.metrovancouver.org/services/air-quality/AirQualityPublications/2010LowerFraserValleyAirEmissionsInventoryandForecastandBackcast.pdf>

Air Quality and Climate Change Basics

<http://www.metrovancouver.org/services/air-quality/information-public/climate-change-basics/Pages/default.aspx>

Particulate Matter Fact Sheet

<http://www.metrovancouver.org/services/air-quality/AirQualityPublications/PMFactsheet.pdf>

7. 2016 Agenda Topics - Catherine Rockandel

- Catherine provided an overview of agenda topics identified at the public meeting. CAP had identified the presentation on the truck loading rack would be the focus of the February meeting in the CAP calls.
- It was agreed that the May meeting would focus on water conservation measures at the refinery; how water is used at refinery in addition to an update on Rainbow Creek health and status.
- The September meeting presentation would focus on a review of pipe locations to and from refinery including waste and water and how crude gets to and from the refinery. In addition an update on NEB proceedings, relationship and role of NEB in larger energy picture would be provided.
- For the November public meeting Metro Vancouver would provide an update on monitoring station locations, what the monitoring stations do, and an update on the monitoring network expansion. An update on the buffer zone in terms of safety and the process of purchasing properties would be provided.

8. Review of 2016 CAP Meeting Schedule – Catherine Rockandel

Catherine provided an overview of the process and results of polling CAP to confirm the CAP schedule, timing, and location of the upcoming meetings.

- May 11th 6:30pm – 8:30pm. Location: Chevron Refinery Board Room
- September 21st 6:30pm – 8:30pm. Location: Chevron Refinery Board Room
- November 30th 6:30pm – 8:30pm (Public Meeting) Location: Confederation Centre

ADJOURNMENT: Meeting adjourned at 8:35 pm