

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel (CAP) and Annual Public Meeting
Tuesday, November 30, 2016
7:00 – 9:00pm
Confederation Seniors Centre**

PRESENT

Al Mytkowicz, Helen Ward, Rob MacLean, Michael Coyle, Eileen Luongo, Davis Vaitkunas, Maziar Kazemi

Chevron representatives:

Dave Schick, Policy, Government and Public Affairs Manager; Kel Coulson, Policy, Government and Public Affairs Rep; Kate Groves, Health, Environment and Safety Manager; Chris Haswell, Operations Manager

Metro Vancouver Representative:

Larry Avanthay, Darrell Wakelin, and Jason Mushtuk, Regulatory Representatives

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets: Kathy Mezei; Rich Baerg, Joanne Smith, Aswinee Rath, Stephen Parker, Refinery Manager

CAP BUSINESS

1. Opening Remarks (See Attachment One)

- Catherine Rockandel welcomed CAP members and members of the public. She provided an overview of the agenda and updated CAP on the resignation of CAP member Matthew Hartney who has moved to Vancouver Island.

2. Chevron Updates

a. General Refinery Operations – Chris Haswell

- The Refinery continues to have strong environmental, safety and economic performance with no disruptions since June.
- 2016 is on the way to being a record year in environmental performance.
- The expression of interest process is still underway.
- Collective agreement bargaining is ongoing and will extend into 2017.
- The Foreshore Remediation Plan was accepted by the BC Ministry of Environment and has been posted to the CAP website.
- Since June the Refinery has been working with BC Hydro to reduce the risk of energy supply disruptions.

Comments and questions about the update:

Q1: What is the risk to the public of a total power outage at the refinery?

A1: During a power outage, the refinery makes every effort to respond with no impact to the community. Our safety shutdown systems designed to bring the refinery down in a controlled and safe manner to minimize impact to our staff and the community. During a power outage event, the most likely impact would be that the community may see a larger flare.

b. Confederation Park Pipeline Update – Dave Schick

- There is some civil construction occurring in the park with trenches being built for pre-cast pipes. This work is about 50% complete. The project should be substantially completed by early March followed by landscaping work.
- The trucks are currently bringing in rocks to stabilize the slope that was impacted by the heavy rain events.

3. Metro Vancouver Update – Larry Avanthay

Overview of MV Update

Reporting Period: September 2016 through November 2016

a. 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 includes complaints referred to Chevron from MV as well as those complaints reported to Chevron directly from the public. MV referred a total of 30 complaints during 2015 so 11 complaints reported to Chevron directly.
January 2016	3	3	
February 2016	7	5	
March 2015	0	0	
April 2016	6	6	
May 2016	4	4	
June 2016	3	3	
July 2016	4	3	
August 2016	6	4	

September 2016	11	8	Five oily sewer odours. Three complaints coded as unknown from Sept 29 th believed to be related to municipal sewer.
October 2016	2	2	One oily sewer odour.
YTD 2016	46	39	21 oily sewer complaints in 2016 (4700 Blk Cambridge)
November 2016	4	TBD	Coding of complaints to be confirmed.

b. Odour Surveys

Date	Activity
Thursday September 8, 2016	Survey conducted of tank farm fence line and Penzance Trails. No petroleum type odours identified. LA
Monday September 26, 2016	Joint odour survey conducted with VB. Two separate sections - adjacent to Area 1 tank farm/4000 Blk Oxford. No petroleum odours identified.
Thursday September 29, 2016	Odour survey conducted Penzance Trails and Trans Canada Trail. No odours detected.

c. Site Inspections/Meetings

Date	Activity
Monday September 26, 2016	Review operating conditions associated with PM emission testing of FCCU (ES19R).
Wednesday, September 28, 2016	Inspection of Vapour Destruction Unit operation.
Wednesday November 30th	Witness SRU RATA conducted by testing consultant.

d. Permit Related Correspondence

Issue	
Tank Truck Loading Rack Vapour Recovery Unit (VRU) Servicing & Authorization of Alternate Controls	<p>Chevron made a formal request (August 24, 2016) detailing plans to service existing vapour control system (VRU) currently authorized to control hydrocarbon vapours from truck loading rack. Proposal identifies a comparable level of controls employing a vapour destruction unit (VDU).</p> <p>An Authorization (September 9, 2016) was granted for short term operation of a portable VDU to control odours from tanker truck loading rack.</p> <ul style="list-style-type: none"> -Restriction on total operating period for period of September 26 to October 7, 2016. - Requires continuous monitoring and recording of critical operational parameter (temperature) as well as specifying minimum temperature requirements. - Final report required confirming minimum temperature maintained during operation period. - VDU is recognized control works for control of hydrocarbon vapours/odours.
October 28, 2016	Operational report submitted by Chevron with details of VDU operation including temperature chart recordings and calibration. No odour complaints related to VDU emissions.

4. 2016 CAP Review: Catherine Rockandel

- CAP began 2016 with 13 members. In the spring Pat Connell retired after serving many years on CAP. More recently Matthew Hartney resigned as he and his family had moved to Victoria.
- Eleven community members now serve on CAP.
- Four regular meetings were held in 2016. These included:
 - Chevron’s Truck Loading Rack (Feb 2016)
 - Chevron’s Water Conservation Initiatives (May, 2016)
 - Pipelines and the Burnaby Refinery (Sept 2016)
 - Chevron’s Role in Environmental Initiatives (Nov Public Meeting)

5. Special Presentation (See Attachment Two)

Kel Coulson presented on the Tier 3 initiatives of removing Sulphur from gasoline and Dave Schick presented on the co-processing biofuels initiatives.

Comments and questions about the presentation:

Q2: I have never seen an accumulation of yellow Sulphur piles at the refinery, how does the Sulphur get from the refinery to Port Moody?

A2: The Sulphur is not granular but molten Sulphur. It drops by gravity into underground storage and then is pumped out into a truck and transported to customers.

Q3: What is the catalyst for molten Sulphur you mentioned?

A3: It is a blend of metals.

Q4: Is Sulphur taken out of gas because it makes the car have less energy?

A4: No, it is for environmental reasons.

Q5: Is Sulphur a natural product?

A5: Yes, it is naturally occurring in the crude.

Q6: Doesn't the catalytic converter take Sulphur out?

A6: Correction to the comment in the meeting that the catalytic converter captures Sulphur dioxide or H₂S - catalytic converters remove NO_x not SO_x.

Q7: Doesn't the reduced Sulphur regulations also apply to ships?

A7: (Metro Vancouver) Yes, ships will have to comply with new global marine diesel Sulphur regulations. Chevron is working towards meeting ambient objectives. This new regulation will positively affect coastal airshed air quality and make a significant change globally by ensuring lower levels of Sulphur is burned

Q8: Is the parts per million the same standard of measurement for all fuels?

A8: Different fuels are subject to different parts per million maximum specifications. More information is available on the Environment and Climate Change website in [Appendix 5](#) of the Federal Fuel Regulation.

Q9: Where does molten Sulphur come from?

A9: Sulphur is naturally occurring in the crude oil that enters the facility, but to meet product specifications the refinery processes are designed to remove that Sulphur so it is not present in the finished fuel. The recovered Sulphur leaves the facility as molten Sulphur.

Q10: What is the economic value of molten Sulphur?

A10: It is very low.

Q11: Is shipping molten Sulphur by barge an option?

A11: Chevron does not have the capability to do that right now.

Q12: How deep are the pits of molten Sulphur?

A12: They are concrete lined vessels that are approximately 10 feet deep and are inspected.

Q13: How do some of the issues you are talking about impact the 2018 turnaround?

A13: The 2018 turnaround will be much larger than 2015. The project to meet Tier 3 specifications is not a big contribution to the work scope being managed in the turnaround.

C14: Last year we heard about processing crude oil that was delivered by rail.

A14: That was sweet light crude. The refinery's supply is now coming by pipeline and we are not currently utilizing the crude by rail facilities.

Q15: What is an example of a non-crude feedstock?

A15: Feedstocks can be produced from a number of things such as soy, canola, biomass, sewage. It is the carbon intensity of the feedstock that will help us meet regulation and lowers our carbon footprint.

Q16: What does carbon intensity mean?

A16: Carbon intensity is a measure of how much energy is used in the life cycle of a product; for example looking at how much energy it takes to create a gallon of gasoline starting from removing crude oil from the ground, to transport and transform to gasoline. For example: crude from the oil sands take more processing than oil from other ground sources so the carbon intensity of oil sands crude is higher.

Q17: At refinery is ethanol made from plants and blended for gas? Is it brought in by truck or train?

A17: The refinery brings in ethanol by rail. The ethanol we used is produced from corn or wheat.

Q18: Doesn't ethanol cause problems for small engines and is there a fuel that does not contain ethanol?

A18: Chevron currently sells a high octane gasoline that does not contain ethanol. In the US most gasoline fuels are mandated to contain ethanol, usually at higher rates than in Canada. The same finished product specifications have to be met no matter what the ethanol content of the fuel is; making it usable in most engines in operation. Owner manuals will specify particular engine fuel requirements for their products and should be followed.

Q19: What happens to the environmental initiatives that you are pursuing if the refinery is sold?

A19: If and when it is sold the new owners still have to comply with the rules set by government.

Q20: Are other parts of Chevron doing research on co-processing bio fuels?

A20: Research is performed in many places in Chevron. This technology is relatively new to our industry because places like California and Europe have added low carbon or renewable requirements, compliance with which encourages new technologies.

Q21: Is there something about the refinery being small that encourages or supports research?

A21: Yes, smaller facilities require smaller amounts of a new feedstock for testing, making it logistically easier to procure enough feedstock to conduct the testing, run the pilot and move towards commercial production.

Q22: Could the refinery be sold as not a refinery?

A22: The Expression of Interest process continues to move along on schedule. At this point in the process we don't have visibility to the potential business objectives and strategies of interested parties.

6. Facilitated Q&A

After the coffee break CAP and members of the public were invited to ask additional questions about the updates and presentations.

Q23: Where do I get information on air quality and health impacts from the refinery?

A23: The CAP website includes all past minutes (each one has detailed information on air quality from Metro Vancouver) and presentations

Q24: What are the contact numbers for Metro Vancouver or Chevron if I smell something?

A24: The final slide in the appendix one presentation was shared with key contact information

7. 2016 CAP Agenda Planning

CAP and the public suggested that the following topics being considered for discussion in 2017 beyond the usual updates and discussion topics:

- Buffer Zone Plan Update
- Air quality related to inversions, Sox reduction and curtailment process. What does the permit say? What is being done?
- Foreshore remediation plan and site visit (Summer 2017 subject to construction)
- Vacuum trucks near fence in area one
- Emergency response protocols, coordination between regulators, marine response
- Trades employment at refinery and types of trades activity in turnarounds
- City of Burnaby, Fire Chief presentation on notification and response processes
- Implications of Kinder Morgan expansion on refinery

ADJOURNMENT: Meeting adjourned at 9 pm