

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel Meeting
Wednesday, October 27, 2014
7:00 – 9:00pm
Chevron Refinery Office Conference Room
355 North Willingdon Avenue**

PRESENT

Maziar Kazemi, Al Mytkowicz, Art Quan, Pat Connell, Helen Ward, Eileen Luongo, Rich Baerg, Robert Bowes, Michael Coyle, Joanne Smith, Helen Ward

Chevron representatives:

Steve Parker, Chevron, Refinery Manager; Jill Donnelly, Health Environment & Safety Manager; Dave Schick, Policy, Government and Public Affairs Manager; Jim Klassen, Christine Haswell, Operations Manager

Metro Vancouver Representatives:

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

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets:

Cathy Argue, Rob MacLean, Kathy Mezei

CAP BUSINESS

1. Opening Remarks

- Catherine Rockandel welcomed CAP members and provided an overview of the agenda and the process for new CAP members.
- Dave Schick provided an overview of his role as the Policy, Government and Public Affairs Manager. Dave has 25 years experience with Chevron in a variety of policy, industry and government relations, marketing, systems development, and planning and finance roles. Dave is responsible for ensuring corporate compliance with federal and provincial climate policies that impact Chevron's Burnaby refinery.

2. Chevron Updates

a. General Refinery Operations – Steve Parker, Refinery Manager

- Steve reported that overall, it has been a good year for the Refinery. We operated safely and reliably. Chevron has seven refineries around the world and we do a lot of sharing – sharing resources, specialists to avoid incidents and people not getting hurt
- Chevron have had no outstanding incidents

- There were a few environmental reportable events that Metro Vancouver will detail in their report that involved sulfur dioxide emissions.
- Chevron is planning for a significant turnaround at the start of 2015. The plan is to complete the turnaround on schedule and without incident. The focus will be on inspecting equipment inside and out, while modernizing other equipment. The Cat cracker, one of the crude units and the SRU are all coming down. Turnaround is expected to last 48 to 50 days. The plant physically shuts down on February 20th.

Comments and questions about General Refinery Operations:

Q1: What were the environmental events?

A1: There were two sulphur dioxide (SO₂) emission exceedances, two effluent exceedances and a cyanide exceedance, of which one SO₂ exceedance, one effluent exceedance and the cyanide were related to the power outage. Metro Vancouver will provide more information on these.

Q2: Were you fined for these events?

A2: No, they were marginal events

Q3: When the refinery is shutdown for the turnaround is there enough gas in the tank farm?

A3: Yes, we gear up to maximize what we have and as needed bring in additional product from our California refineries to support the market's needs.

Q4: During turnaround is there a chance of the air quality being impacted?

A4: No, the tanks are equipped with double mechanical seals so VOC's are contained

C5: We're challenged for effluent water quality moving forward and trying to reduce water consumption. We are prepared for the recent weather conditions (heavier downpours). We treat all water that falls in the refinery.

b. Area 2 Seep – Jill Donnelly, Health & Environment Safety Manager

- Jill provided an overview of the Seep for new CAP members. She highlighted that in 2010 Chevron discovered a seep of historic hydrocarbon leaking into Burrard Inlet. Chevron installed hydraulic wells at the perimeter of the refinery and absorbent barriers at the beach to prevent any hydrocarbon migration.
- The clay barrier continues to work effectively. The railway trench is collecting water and no hydrocarbons have been captured in a long time. On the site, the barrier wall of hydraulic wells is capturing ground water and pumping this back to the treatment plant, and this is preventing any further migration of contamination. The volumes appear to be decreasing, which indicates the sewer that Chevron took out of service was contributing to the Area 2 seep issue.

- Chevron is looking at a final remedy down at the foreshore. A technical team is designing what the final remedy will look like. This should be in place the summer of 2016.
- All reports are contained on the Chevron website.

Comments and questions about the Area 2 Seep:

Q6: How long do you anticipate the seep will continue?

A6: The final remedy will be there for a long time.

Q7: How much hydrocarbon is being recovered?

A7: In the first year 20,000 liters of hydrocarbon was captured, in the second and third year approximately 500 litres of hydrocarbon was captured. The amounts are decreasing. Chevron posts quarterly reports on the CAP website

Q8: What is absorbent material?

A8: It is oleophilic clay. It is designed to only hold hydrocarbon

Q9: Can you see it?

A9: It's difficult to see unless you are looking for it. It doesn't disrupt what the beach looks like

Q10: The absorbent clay was put down in 2011 and now you say no final remedy until 2016, are you confident that it will last?

A10: We did double up the barrier and measure on regular intervals. The clay has not reached saturation. In addition the primary protection wells are working very well

c. Buffer Zone Update – Dave Schick, Policy, Government and Public Affairs Manager

The Buffer Zone program has involved purchasing homes adjacent to the refinery in Area One. The program is almost 40 years old and Chevron is working with the City of Burnaby to update the program. The purchase program is on a case-by-case basis using appraisals and assessments. Chevron is still committed to purchasing the homes closest to Area One but the needs of the community and our needs have changed

Comments and questions about the Buffer Zone program:

Q11: What happens to the houses once they are purchased?

A11: Chevron bulldozes the house and turns the property over to the City of Burnaby for park land

Q12: Is that seen as a donation?

A12: Yes, it is considered a donation.

Q13: Is the buffer zone just for Area 1?

A13: Yes

3. Presentation: Noise Mitigation focusing on “Sound Science”, Monitoring and Refinery Equipment (See Attachment One)

Jim Klassen presented a slide presentation on Chevron’s strategies for noise mitigation.

Comments and questions about Noise Mitigation & Monitoring:

Q14: What is the acoustic barrier material made from?

A14: Scaffolding walls are lined with plywood and fire blankets. These are positioned against the hillside and then equipment is positioned to prevent sound from travelling beyond the fence line – or across the water, as the case may be.

Q15: What is the number to register complaints?

A15: The number is in every Neighbourhood News newsletter. The Chevron Burnaby Refinery community contact number is (604) 257-4040 and the Metro Vancouver Air Quality telephone number is (604) 436-6777.

Q16: How often do you get complaints?

A16: Last turn around in 2013 there were zero

Q17: What other guidelines do you follow for noise beyond the City of Burnaby bylaw 7332?

A17: Chevron is mandated to follow City bylaw but also follows federal and provincial regulations.

4. CAP Q&A

Emergency Notification Update

- Art Quan of the CAP Emergency Notification Sub-committee provided a brief history on emergency notification. Since the CAP’s inception this topic has been on the Agenda. It has taken many years to get to this point. Art stated that Ray Lord, previous Chevron manager did a lot of work researching different companies and settled on Rapid Notify
- Chevron Canada does not have authority to tell Burnaby residents to evacuate. It’s a City issue. CAP sub-committee took the initiative and did a presentation to Burnaby Council asking for a pilot project in North Burnaby with future expansion. They indicated that Chevron is prepared to pay for localized system startup and ongoing costs.
- The Mayor of Burnaby indicated the City is not willing to implement localized system. They are skeptical of automated notification and they don’t see the justification for such a system. The City indicated that it had no objection should Chevron implement a localized system of their own

- Dave Schick shared that when he spoke with Rapid Notify they agreed the system should be operated by the City. Any liability the City sees for itself is amplified for Chevron. Chevron is supportive but as a private company it shouldn't run a public notification system.
- Art will follow up with Dave Schick to discuss next steps and approach

Comments and questions about Emergency Notification:

Q18: Is Chevron willing to implement the system on its own?

A18: We are supportive but we are not a public service provider and are not in a position to operate

Q19: UBC has a system like this (<http://emergency.ubc.ca/ubcalert/>) does Metro Vancouver?

A19: No, Metro Vancouver does not operate an emergency notification system

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

Metro Vancouver has the regulatory authority specific to discharge of air emissions 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 reporting period. This can include:

- Summary of air quality complaints
- Odour surveys
- Site Inspections
- Response to specific Incidents or Issues of concern

Air Quality Complaints

Summary of 2014 air quality complaints. Totals are from monthly summary submitted by Chevron as requirement of Odour Management Plan.

Month	Complaints
January 2014	2
February 2014	1
March 2014	2
April 2014	1
May 2014	5
June 2014	2
July 2014	7
August 2014	6
September 2014	1

Year to Date 2014	27
--------------------------	-----------

Odour Surveys

A total of three odour surveys were conducted during this reporting period (June to September). Surveys were conducted in the neighborhood adjacent to the Tank Farm (Area 1) on June 26th and August 11, 2014. Additional survey conducted on Penzance Drive adjacent to refinery (Area 2) on July 17, 2014. No petroleum odours were identified during the tours attributable to the refinery/tank farm operations.

Site Inspections

Date	Activity
June 3, 2014	Inspection to review report to Provincial Emergency Program (PEP) related to pin hole leak on vessel associated with refinery unit. No evidence of leak causing any off-site odours due to size of leak and location within the facility.
June 16, 2014	Inspection conducted during refinery recovery following power interruption the previous day. Inspection focus largely on dry circulation process within the Fluid Catalytic Cracking Unit (FCCU) and Chevron actions to address visible emissions (opacity).
July 17, 2014	Review of FCCU operations during scheduled particulate matter emission testing. A review of the Continuous Opacity Monitor (COM) calibration protocols was also witnessed. Petroleum tank (#1013) status was also reviewed as refinery personnel had isolated tank earlier upon identifying odours in immediate tank area. A public air quality complaint on Trans Canada Trail immediately above refinery was registered during period refinery staff were isolating the tank.
Monday August 18, 2014	Review of Leak Detection and Repair (LDAR) testing protocols with Chevron staff and their LDAR consultant.

Reported One Hour Permit Exceedance Continuous Emission Monitor Systems (CEMS) for Fluid Catalytic Cracking Unit (FCCU) Sulphur Recovery Unit (SRU)

Date	Source	Incident Discussion
June 15 & 16 th , 2014	FCCU (ES19R) & SRU (ES22R)	Refinery start-up following June 15 th power disruption at facility resulted in three exceedances of the one hour permit restriction for FCCU. A single one hour exceedance of SO2 restriction for SRU was also reported during this period.
June 24, 2014	SRU (ES22R)	One hour exceedance of SO2 restriction
July 8, 2014	SRU (ES22R)	One hour exceedance of SO2 restriction
September 21, 2014	SRU (ES22R)	One hour exceedance of SO2 restriction

Comments and questions about Metro Vancouver report:

Q20: Why isn't your phone number posted along the trails, beach, playgrounds so that people know who to call?

A20: The number is posted at some locations. You would have to ask the City of Burnaby if they would be willing to post our number (CAP subcommittee to discuss next steps to approach City of Burnaby)

Q21: Were any workers exposed during SO2 emissions?

A21: No, the emissions were very low

Q22: How big is exceedance?

A22: There are different criteria for different types of exceedances. These were lower levels

Q23: Who develops the exceedance levels and determines what are appropriate levels?

A23: Metro Vancouver criteria are based on modeling and criteria.

Q23: Who would call Chevron or Metro Vancouver?

A23: You can call Chevron and we will respond right away as well as calling Metro Vancouver

Q24: How many monitoring stations are there?

A24: There are four Metro Vancouver monitoring stations, two on Capitol Hill, one at Kensington and one on the North Shore.

Q25: Do you respond to only odor complaints by residents?

A25: Metro Vancouver responds to any odors that impact air quality

Q26: Are there particular locations where odors are to be expected and we should not be concerned?

A26: Odor complaints are more frequent in areas near finished products. However, regardless of area odors should be reported with a good description of the odor. We investigate every complaint because everyone's threshold is different.

6. Public Meeting Planning – Catherine Rockandel

- The public meeting is scheduled for November 19th, 2014 at the Confederation Centre.
- The public meeting provides an opportunity for the public to experience an abbreviated CAP meeting. It includes updates on general refinery operations, the Area 2 Seep, and a special presentation such as Refining 101. A meet and greet is followed by brainstorming topics of interest for the 2015 CAP meetings.

ADJOURNMENT: Meeting adjourned at 9:05 pm