

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel Meeting
Wednesday, March 5th 2014**

7 – 9 pm at the Confederation Seniors Centre

PRESENT

Pat Connell, Maziar Kazemi, Kathy Mezei, Art Quan, Rob Maclean,

Chevron representatives:

Steve Parker, Chevron, Refinery Manager, Jill Donnelly, Health Environment & Safety Manager; Jorge Marcó, Public & Govt. Affairs Manager; Allan Chang, Value Chain Optimization Manager; Mitra Kashanchi, Operations Manager

Metro Vancouver Representatives:

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

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets:

Eileen Luongo, Kathy Curran, Rob Firkins, Al Mytkowicz, Helen Ward

Guests:

Joanne Smith, Capitol Hill, Burnaby

CAP BUSINESS

1. Opening Remarks

- Catherine Rockandel welcomed CAP members to the first meeting of the year and provided an overview of the agenda. She also welcomed Joanne Smith, a neighbor interested in CAP membership.

2. Chevron Updates

a. General Refinery Operations – Steve Parker, Refinery Manager

- Steve reported that the refinery team takes the responsibility of managing the refinery in one of the most beautiful places in the world very seriously. Chevron has seven refineries around the world. The Chevron Refinery system had the safest year ever last year and also sets the pace for injury-free operation across the whole industry.
- At Burnaby, the last injury was a wrist sprain in July 8, 2013. We are proud of operating for long periods of time without injury, including the period of

- intense work during the shutdown over the past month. The shutdown focused on inspections, refurbishments, and upgrades. The refinery started up again on Monday, March 3rd, 2014 and is running well.
- Over the course of the last year the refinery has been hiring the very best skilled people. Despite the concern that competition from Alberta might impact hiring, we are pleased to have recruited some very experienced hires and we are continuing to build on our world class capability at the Burnaby Refinery.

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

- Jill reported that on the foreshore the clay barrier is working effectively. Inside and outside the barrier there are a number of sampling wells. Chevron is conducting several seasons of research to analyze flows to determine final remedy. 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.
- This summer a new compressor and a new oil water separator will be installed.
- All reports are contained on the Chevron website.

Comments and questions about the Area 2 Seep:

Q1: Have you been able to quantify the decrease in volumes?

A1: In the first year of operation we estimated approximately 21,000 litres of hydrocarbons that were pumped back. The second year we estimated that approximately 500 litres were pumped back. The less volume there is, the more difficult it is to estimate.

Q2: Is the installation of the new oil water separator going to help with the quantifying?

A2: It might help.

Q3: Is there any time frame on when the final design at the foreshore will be completed?

A3: Chevron is hoping for Summer of 2015.

Q4: Are the online updates once a month?

A4: Updates are now provided on a quarterly basis.

Q5: Are we still getting seep on the foreshore?

A5: We are seeing very little to no hydrocarbons. This is because the clay barrier and the monitoring wells inside and outside the clay barrier would capture any seep.

Q6: What is the data trying to get a picture of in terms of seasonality?

A6: As the water table goes up and down it can capture, touch or flush out any additional hydrocarbons. We are seeing that the barrier is working well through the seasons because there is very little to no hydrocarbons.

3. New Business

a. Proposed Refinery Opening Day – Jorge Marco

Chevron is interested in exploring the possibility of a Refinery Open House with CAP. The thought is to have booths lined up presenting parts of processes and parts of the plant, guided bus or van tours, among others, hosting late summer or early fall. This would be a neighbourhood family affair to engage the community and an opportunity for employees to meet the neighbours. When was the last time the community came and toured the refinery?

Comments and questions about the Refinery Open House:

C1: It has been 18 plus years since the refinery had an Open House. It was good. I remember Chevron had bus tours and walking tours. It was all in area two.

C2: Yes, I agree it was good. It was all in area two. The booths were in the parking area. CAP's general consensus was that they are supportive of a Refinery Opening Day.

C3: There is a lot of mystery about what is going on behind the fence. The slogan could be: "What goes on Behind the Fence."

C4: There have been two Open Houses in the past 18 years; they were about a year apart. Other plants have had Open Houses. In the past five years Petrocan hosted an Open House

C5: There is a whole new generation of people in the neighbourhood that were not here 18 years ago. I think people would be interested in the whole process from beginning to end, so have a tour that encompasses area one and two plus the new fire hall as the kids would love that too.

C6: Metro Vancouver could be interested in having a table.

CAP agreed that September was a good time to host the Open House and that the members would be interested in having a booth at the Open House. CAP felt that the Open House is a separate event from the September CAP meeting.

Jorge Marco welcomed CAP members that would like to get involved in planning to participate on the committee. CAP could help Chevron to build attendance and offer programs that would be of interest to the community.

4. CAP Q&A

a. **Crude by Rail – Allan Chang (see attachment one)**

Allan provided an overview on rail cars and rail car safety. He explained that the new enhanced cars have head shields that provide an additional layer of protection in the event of derailment. They also have top fitting rollover protection that protects the fittings and valves on top of the rail cars and prevents them from sheering off in the event of derailment. Skid protection keeps the bottom of the cars protected as well.

Another safety feature is the double-shelf coupler. This is essentially a sleeve that locks to protect the rail cars from decoupling and colliding with each other.

The thickness of the metal and the type of treatment of metal on the new enhanced cars ensures it is stronger and has protection features from extreme temperatures and impact. Other features of safe railcar operation do not involve railcar design itself but rather logistics management. This involves items such as reducing the total number of cars in a train, reduction of speeds, among others.

Comments and questions about crude by rail:

Q1: Are all the rail cars in use with the new enhanced design?

A1: Three quarters of our fleet meet the enhanced design guidelines. Our immediate plan is to replace the cars that are not enhanced through natural attrition over the next year. For those cars with longer lease life we are working with the corporation to determine an appropriate timeline to upgrade the cars to a higher standard, or replace them with newer cars that meet the enhanced design guidelines.

Q2: The vents on the top of the rail car, what is vented from the rail car?

A2: At the Chevron refinery, we unload in a manner that allows nothing to be vented to the air. The Chevron system is a closed system and the vapours are recovered back in the system.

Q3: Is the vapour recovery system only on the enhanced rail cars?

A3: All the cars use the vapour recovery system.

Q4: I have a question about routing – do the tank cars come east to west rather than the other way?

A4: Yes, the rails cars come from the main rail yard in Coquitlam. Most of our crude cars come from Alberta and are staged in the Coquitlam yard, prepared and shipped to the refinery on the CP line.

Q5: Is Isobutane shipped the same way?

A5: Yes, Isobutane is shipped by rail car to the refinery year round. It has been part of the operation for many years.

Q6: What proportion of the rail cars contains isobutane?

A6: Roughly for every ten cars of crude there are one to two cars of isobutene. During the winter we also take delivery of normal butane and it is relatively the same ratio.

Q7: If the Isobutane is flammable is it transported in different types of rail cars?

A7: Yes the rail cars that carry isobutane are even more enhanced.

Q8: Are you at full capacity for the rail cars carrying isobutane?

A8: Chevron has some spare capacity.

Q9: How many rail cars per day are currently moved?

A9: There are ten to fourteen cars of crude per day delivered to the refinery.

Q10: How much trucks per day deliver crude to the refinery?

A10: 15-24 trucks per day deliver crude.

Q11: Has the number of trucks delivering crude to the refinery been reduced with the rail facility?

A11: Yes, we are in a reduced mode at the present time. The crude that is delivered by truck to the refinery comes by the CN rail line and then is transferred into trucks for delivery to the refinery.

Q12: I had asked about whether CAP could tour the crude by rail facility prior to the meeting, could we have a tour at the May meeting?

A12: Yes, Chevron could provide a tour in coordination with the next CAP meeting.

b. Emergency Notification Update

Kathy Mezei, of the CAP emergency notification sub-committee provided an update to CAP. She has recently spoken with Dipak Dattani, Assistant Director, Engineering and Chad Turpin, Deputy City Manager, about the emergency notification proposal status. Kathy reported that the City of Burnaby Council has decided to wait for a decision on the NEB pipeline. It is hoping that the Petroleum Association will provide the funding for city emergency notification system. The thrust of CAP's presentation to the City of Burnaby was that a local notification system for the Chevron catchment area is a first step and a pilot project could be expanded to the whole city. Kathy reported that the City of Burnaby is saying they would like to cover the whole city and wait for the resolution of the Kinder Morgan NEB hearings rather than implement a pilot project. The CAP sub-committee requested that Chevron's Refinery Manager Steve Parker, and the CAP sub-committee meet with City of Burnaby, Deputy City Manager Chad Turpin and Dan Johnston, chair of the finance committee, to discuss the issue. Steve said that he would certainly participate in a meeting.

5. Metro Vancouver Update - Larry Avanthay

Air Quality Complaints

- Larry reported that only a single complaint was registered in December 2013. The total number of complaints reported to Chevron by Metro Vancouver during 2013 is 58, a decrease from 70 reported in 2012. Chevron conducts an evaluation of the complaints each year as part of their Odour Management Plan to determine whether any additional action(s) are warranted to address patterns or chronic issues identified.
- In January 2014, a total of two complaints were reported. One of the complaints occurred at Inlet Drive which is not typically an area associated with odour complaints related to Chevron activities. Kinder Morgan was also contacted since they have operations nearby. Staff from Kinder Morgan and Chevron both attended to the affected area as part of their investigation but no source of the odour was determined. The complaint will likely be registered as being from an unknown source or activity.

SOx Curtailment Events (SCE)

- The trigger point for a SCE is defined in Chevron's permit as a reading greater than 0.190 parts per million SO₂ for a 10 minute rolling average at neighbouring ambient air monitoring stations (T4/T6/T23/T24). The permit requires that Chevron take all necessary steps to reduce the readings to below the 0.190 trigger point. There were two SCE events triggered in late January, which was a period of poor atmospheric dispersion or vertical mixing.

<u>Date</u>	<u>Time</u>
January 23, 2014	2305 HRS@ 191.7
	2311 HRS@ 190.8
	2312 HRS @ 191.5

Incident Discussion

Duration was 3 – one minute events. Chevron Shift Supervisor receives notification (text through phone) at 0.170 ppm approaching the SCE level. Will go and verify SO₂ values and subsequently initiate response.

<u>Date</u>	<u>Time</u>
January 24, 2014	
	0244 -0250 HRS
	PEAK – 206.7 ppb @0248HRS

Incident Discussion

Duration of event was for a total of 7 minutes. Chevron had proactively reduced their set-point from 240 to 220 ppm an hour earlier. Following the SCE alert the set point was further reduced to 200 ppm. Stagnation Forecast was issued to BC Ministry. Chevron maintained set point at 220 vs. 240 over the weekend. No further SCE identified during this period.

6. 2014 Agenda Topics Review - Catherine Rockandel

- The following topics were suggested for 2014 - beyond the usual topics covered by CAP:
 - Crude by Rail: structure, process safety
 - Noise mitigation: planning and engineering
 - Refining 101”

Comments about the 2014 agenda:

- CAP suggested that Crude by Rail and noise mitigation could be dealt with at the May meeting.
- “Refining 101” – CAP has a good understanding of the refining process. Refining 101 would be a good presentation for the September Community Open House.
- CAP asked that an update on the Buffer Zone and City of Burnaby plan be a topic for a future meeting to be confirmed.
- CAP suggested that it would give further consideration to topics for the September meeting and November public meeting.

7. Review of 2014 CAP Meeting Schedule – Catherine Rockandel

- The meeting scheduled was confirmed for May 28th, September 24th, and November 19th, 2014.
- The May meeting would include a tour of the crude by rail facility. Appropriate walking shoes and outdoor clothing would be required
- CAP confirmed that the November meeting would be the public meeting.

ADJOURNMENT:

Meeting adjourned at 8:30 pm