

**Minutes of the Chevron Burnaby Refinery
Community Advisory Panel Meeting
Tuesday, February 19, 2013**

7 – 9 pm at the Confederation Seniors Centre

PRESENT

Rob McLean, Al Mytkowicz, Maziar Kazemi, Kathy Mezei, Eileen Luongo, Ian Lacoursiere,

Chevron representatives:

Jill Donnelly, Health Environment & Safety Manager; Jim Gable, Refinery Manager; Ray Lord, Public & Govt. Affairs Manager

Metro Vancouver Representatives:

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

Facilitator:

Catherine Rockandel, Rockandel & Associates

Regrets:

Kathy Curran (maternity leave), Rob Firkins, Pat Connelly, Art Quan, Bonnie Hayward

Guest Observers: Kate Groves, Burnaby Refinery, Facilities Planning Manager; Alan Chang, Burnaby Refinery, Value Chain Optimization (Supply) Manager

CAP BUSINESS

1. Opening Remarks

- Catherine Rockandel welcomed CAP members to the first meeting of the year. She reviewed the agenda and the protocols for guests as outlined in the CAP Terms of Reference.

2. Chevron Updates

a. General Refinery Operations - Jim Gable

- Jim reported that on Thursday Feb 15th, the refinery started a planned six-week maintenance turnaround. The diesel hydro treaters will be off-line until March 30. Two shifts are working each day with changeovers at 5:30pm and 6am. There are over 400 workers on site and we are taking precautions to minimize any impacts on our neighbours including noise and traffic. You may see intermittent elevated flaring while units are being depressurized and again when we start them back up in a few weeks.
- Tank work continues in Area 1 with tank 152 now back in service

- The crude by rail off loading facility located near the wharf in Area 1 is currently under construction. It is scheduled to begin operation by the second quarter of this year.
- Chevron's application for Priority Destination Designation hearing at The NEB (National Energy Board) has been delayed until March 26th 2013.
- From March 4 – 15, will be doing preventative maintenance work on the refinery's underground crude supply pipeline that brings our crude from the Kinder Morgan Terminal on Burnaby Mountain to the refinery. The work location is in the 7500 Blk Birkdale Place near Glen Abbey Avenue. We will communicate directly with neighbours in the vicinity of the work site to advise them of the work we have planned.

Questions about General Refinery Operations included:

Q1: How does the refinery operate when units are shut down during maintenance and if we can continue to operate with fewer units why can't they stay shut down permanently?

A1: Chevron is running at less than 50% utilization during the current shut down. It wouldn't be sustainable to operate at this level long-term, as we aren't making all the products we typically make.

Q2: Penzance Drive looks like it is being widened, is Chevron going to widen it all the way down to the bottom?

A2: The work going on along Penzance Drive is not related to Chevron. The City of Burnaby is doing water main upgrade work.

Q3: What is the pipeline maintenance you mentioned?

A3: Chevron is replacing a section of the pipe as part of our regular maintenance program. Inspection equipment identified a section that exhibited some wall thinning and although it is still within safe operating conditions, we are going ahead with a replacement of that section.

Q4: Why are you doing it and not Kinder Morgan?

A4: Chevron owns, operates and maintains this pipeline.

Q5: Can you explain why you need to build a crude by rail facility?

A5: Because of the ongoing apportionment issue we talked about many times at CAP, we've searched for ways to supplement our crude oil supply beyond just the pipeline. We are currently shipping some crude in by tank truck and now have plans to bring in crude by rail car.

Q6: Does using rail increase the risk of accidents?

A6: No, we don't think this represents an incremental safety risk.

Q7: Will there be an increase in odors?

A7: No, because it utilizes a dry, direct connect dry system that is pumped up to the refinery. More information on the refinery's new crude by rail facility will be included in the cover story of the next issue of the Refinery's Neighbourhood Newsletter.

Q8: Who is the rail carrier?

A8: CP Rail

Q9: Is this area close to the seep

A9: No, Chevron is modifying an existing rail car off loading facility in Area 3, which is adjacent to the marine loading wharf in the shipping and blending section of the plant. The seep is near Area 2 - the processing section of the refinery at the foot of Penzance Drive.

b. Area 2 Seep – Jill Donnelly

- Jill reported that in recent months, Chevron’s seep management effort has moved into an “operation and maintenance” mode. The systems we now have in place are doing well and effectively recovering ground water and associated hydrocarbons.
- We will be making further enhancements in coming months like replacing a main compressor, connecting the discharges for the extraction well pumps to the new north sewer line that has been built to replace the original one.
- At the railway trench we’re continuing to pump mostly water. At the beach the absorbent, oleophilic clay continues to do its job. Monitoring data is being collected that will help us determine what the best option for a final remedy at the foreshore will be.

Questions about the Area 2 Seep include:

Q1: How long is the drilling that starts next week going to take?

A1: About one to two weeks

Q2: Is anything still leaking into the inlet?

A2: The absorbent clay system is effectively collecting any oily substance. Our monitoring data has indicated that some “dissolved phase” hydrocarbon is present at very low concentrations beyond the absorption system in the pore water under the sea floor.

c. Site Remediation Status Update Summary - Jill Donnelly (see attachment 1)

- Jill reviewed the attachment to clarify the locations of the various remediation sites at the refinery. She reported that sites 6, 7, 8 are perimeter extraction wells, and 9 is on the foreshore. Sites 1-5 are unchanged; site 4 has had some change as this is in the area of the crude by rail construction. We are using air injection technology in that area to assist the natural breakdown of hydrocarbon contamination resulting from historic accumulation.

Questions about Site Remediation include:

Q1: What does air injection do?

A1: It helps micro-organisms in the soil to naturally break-down any hydrocarbon residues.

Q2: What is the timeline to implement final solution for the seep

A2: We hope by summer 2014

Q3: How much are the wells extracting?

A3: The comprehensive report is online at the CAP website as part of the regulatory updates. It must be noted that over the first year there were 10 extraction wells; then Chevron added 4 more wells. Today there are over 40 wells so it is difficult to compare measurements from year to year. The effectiveness of the wells is measured by how effectively they are drawing down the water table. For the first year of operation, the wells extracted approximately 5 million litres of water and of that, approximately 20,000 litres was hydrocarbon or about 0.4%.

Q4: Is the level of hydrocarbon going down or is it stable?

A4: It is hard to estimate because the subsurface water table fluctuates, but we think it may be less because less material is present as a result of efforts to date and the replacement of the sewer, which was a known contributing source.

3. CAP Q&A

a. Emergency Notification Proposal Update

- We have undertaken conversations with a vendor. Jim and Ray presented to staff at the City of Burnaby in May 2012. The vendor, Rapid Notify, also works with the City and District of North Vancouver and the District of West Vancouver. We're looking at a pilot project for north Burnaby and then a larger component for the entire system. Chevron has offered to fund the North Burnaby section of the system as part of a proposed pilot project.

Questions about Emergency Notification Proposal include:

Q1: Do you think that the City of Burnaby are dragging their feet?

A1: No. This is a very complicated issue. It's unlikely the City is going to consider putting a system like this in place at this time as it may not be a high enough priority unless Burnaby City Council decides to make it one. The proposed Kinder Morgan pipeline expansion could be a factor in elevating this issue locally.

CAP suggested that they would like to strike a subcommittee that could meet with City staff – Art Quan is interested. Maziar Kazemi and Kathy Mezei also volunteered.

Q2: Is Chevron willing to pay a portion of the costs?

A2: Yes, we have indicated that we would help fund the North Burnaby portion of a system that would cover the areas adjacent to the refinery.

Q3: Can we have updates on the Chevron website in case of abnormal operations?

A3: Ray pointed out the “Current Operational Status” window on the existing CAP website home page. This is used to provide notification of scheduled shutdowns and could be used to provide brief information during abnormal operating conditions

C4: The blue color of the font does not make it stand out

C4: We can look at changing the font color to make that more visible.

b. Refinery Crude Supply – Priority Destination Designation Application

- The original NEB hearing date in Calgary has been delayed until late March.
- Members of CAP commented on some recent media coverage they’d seen where the Mayor of West Vancouver expressed his personal views about the future of the refinery. His comments were made in the context of a recent meeting of Metro Vancouver’s Regional Transportation Planning Committee. While he is certainly entitled to his opinions they in no way reflect Chevron’s plans for this facility.

4. Metro Vancouver Update - Larry Avanthay

a. SO2 – T23 Capitol Hill

In late January 2013 we experienced weather inversion for a number of days with very little vertical mixing or atmospheric dispersion which typically results in a build-up of local air contaminants. During this time there were exceedances of both one hour and 24 hour Objectives for Sulphur Dioxide (SO2) at the Capitol Hill ambient air monitoring station.

Exceedance of 1-Hour SO2 Objective (174 ppb)

Sunday - January 20, 2013	0700Hrs	252 ppb
Monday - January 21, 2013	0200 Hrs	209 ppb

Exceedance of 24-Hour SO2 Objective (48 ppb)

Sunday – January 20, 2013	0400Hrs	48.7 ppb
	0500Hrs	50.1 ppb
	0600Hrs	48.6 ppb

Chevron Refinery SOx Curtailment Events (SCE)

The air discharge permit for the Chevron Burnaby Refinery includes a condition that the facility continuously monitor SO2 levels at four nearby ambient air monitoring stations and take action to reduce SO2 emissions from the facility when a certain ambient SO2 concentration is reached (SOx Curtailment Event identified as 0.190 ppm SOx @ 10 min. rolling average T4/T6/T23/T24).

SOx curtailment events were triggered during the period of the SO2 exceedances and the refinery took actions in response to the ambient monitoring data they received. Chevron reported that the SOx set-point on FCCU regenerator discharge was lowered in response to the measured ambient concentration. Lowering the SOx set-point increases the amount of SOx additive introduced to the FCCU resulting in reduced SOx emissions from this

source.

It should be noted that Chevron experienced delayed access to some of the SO₂ data from Metro Vancouver ambient stations during this period. These irregularities have been confirmed by Metro Vancouver Air Quality Monitoring staff and staff are in process of troubleshooting reported problems to identify root cause in delay of station data.

b. Air Quality Complaints

Month	Total complaints	(Area 2)	(Area 1)	Oily Sewer Odour
November 2012	9	---	5	4
December 2012	4	1	3	---
January 2013	7	1	2	4

c. Odour Surveys

Two odour surveys in the surrounding neighbourhood were conducted by Metro Vancouver staff during this time period. The survey results and observations are typically provided to Chevron for their records as well.

Date	Time
November 26, 2012	1545 to 1632 Hrs
January 30, 2013	1550 to 1628Hrs

d. Inspections

The following inspections were conducted by Metro Vancouver staff during the reporting period. An inspection conducted on February 7, 2013 was also included as it relates to the previously reported SO_x Curtailment Events:

Monday, December 3, 2012

Issue: Facility reports exceedances of 20% Opacity (One hour average) restriction for Fluid Catalytic Cracker (FCC) on December 1st and 2nd, 2012. Inspection conducted to review plant records and review actions taken by Chevron operating staff to maintain compliance with the permit limit during this period. Incident report submitted by Chevron identified catalyst quality as likely cause of opacity event. Report still under review – formal response yet to be confirmed.

Monday, December 10, 2012

Issue: Witness annual seal inspection by contractor, Veolia Environmental Services, of external floating roof tank (Petroleum Storage Tank #1008 – Emission Source 27R)

Thursday, February 7, 2013

Issue: Review SO_x Curtailment Response (Emission Source 19R – Fluid Catalytic Cracker) with refinery staff which included Unit operators/process engineer and Environmental Specialist. A problem has been verified regarding timely access to Metro Vancouver ambient monitoring station data. Metro Vancouver Air Quality Monitoring staff are in process of troubleshooting reported problems to identify root cause in delay of station data.

Questions for Metro Vancouver representatives include:

Q1: There were police at the T24 monitoring station for 3 hours, what was it all about?

A1: We have had no report that there was an incident of any sort involving our ambient station. I've spoken to the Air Sampling Supervisor on the 14th and on Feb 18 and also spoke directly to the MV staff member "on the ground" who is responsible for this station and last visited the site on Friday to conduct routine work. The incident was not related to the refinery or the monitoring station.

Q2: Can you share the results of the inspections?

A2: We are still reviewing the results, as there were delays in the information delivered from the monitoring station. We will be looking at what actions need to be taken to address this.

5. 2013 CAP Agenda Topic Prioritization - Catherine Rockandel

The facilitated brainstorming session with CAP and several other individuals from the local community at the November 2012 CAP Neighbourhood Meeting, identified a number of potential topics for discussion in 2013. After further review, CAP suggested that some of the suggested topics were already being addressed in the course of regular CAP meetings while others were more operational issues rather than specific subjects for further discussion.

CAP members prioritized the list of topics and agreed that the top two items would be a priority for the May and September meetings.

- #1 Security – May 22nd
 - This includes fundamental systems, facility surveillance, what Chevron considers threats to security, tank protection, protocols for dealing with issues such as abandoned cars
- #2 Health Concerns – September 18th
 - Living near a refinery (CAP suggested that it define objectives and expectations with other members of CAP that were not present)

Topics addressed in regular CAP meeting updates:

- Community Emergency Notification
- Soil Contamination and Seep management - ongoing monitoring
- Odor management, noise monitoring and mitigation
- Corrosion monitoring and management protocols

Topics identified as general CAP operational issues

- CAP participation on sub-committees
- Social media tools for public input
- External independent consultant to do a corrosion safety protocol audit

6. Review of 2013 CAP Meeting Schedule – Catherine Rockandel

The 2013 CAP meeting schedule:

- May 22nd; September 18th, and November 20th (Annual Neighbourhood Meeting)

Discussion regarding the Annual Neighbourhood Meeting in November 2012, provided the following feedback:

- “It’s good PR for Chevron and the CAP.”
- “Good to see past CAP member’s perspective.”
- “Shouting by members of the public was unnecessary.”
- “From Chevron’s perspective – it offers a good forum for people genuinely interested in constructive dialogue with the refinery. That annual meeting was not intended to be an opportunity for regional, anti-energy industry activism. It’s about neighbor to neighbor conversation and mutual awareness building about the refinery and sharing any questions or concerns our neighbours may have about our operations.”

NEW BUSINESS: Jim Gable announced that he has accepted his next assignment and been transferred to Chevron’s San Ramon California- based headquarters. He thanked everyone for their time and efforts serving on CAP and reiterated that CAP has helped improve the refinery’s operations. His replacement is Steven Parker. Steven has a lot of refinery experience and will be coming to Burnaby from Capetown, South Africa where he has served as refinery manager for close to three years. It’s expected that Steve will be with us for the next meeting in May.

NEXT MEETING: Wednesday, May 22, 2013

ADJOURNMENT: Meeting adjourned at 8:40pm