Summary Meeting Notes
of the Parkland Burnaby Refinery
Community Advisory Panel (CAP) Q2 Meeting
Wednesday, June 16th, 2021
6:00pm-7:30pm
via Zoom

CAP REPRESENTATIVES:
Kathy Mezei, Joanne Smith, Aswinee Rath, Davis Vaitkunas, Daniel Wood, Tim Maryon, Amy Smith

CAP REGRETS:
Michele Joel, Catherine Carlson, Judith Roche

GUESTS:
Brian Clive, Tony Bosello

PARKLAND REPRESENTATIVES:
Alex Coles, Refinery VP & GM; Nick Middleton, Director, Health, Safety & Environment; Vicki Bowman, Environmental Manager; Refinery Strategy & Business Planning; Kate Groves, Director, Operations; Jonathan Tyler, Planning; Jem Morrison, Environmental Field Specialist, Rajvir Rao, Community Relations Manager, Jessica Bermudez, Community Relations Coordinator, Emma Luongo, Community Relations Advisor

METRO VANCOUVER REPRESENTATIVES:
Darrell Wakelin, Jason Mushtuk

FACILITATOR:
Judy Kirk, Kirk & Co. Consulting Ltd.

ACTION ITEMS:

Item	Responsible
VOC monitoring added to Capitol Hill Monitor	Jem Morrison
Additional methane questions follow-up	Metro Vancouver/Vicki Bowman
Emergency Response System update	Nick Middleton

MEETING AGENDA and Q&A:

1) **Welcome – Judy Kirk, Facilitator**

Judy welcomed the attendees and provided a brief land acknowledgement for the unseeded territory of the Musqueam, Tsleil-Waututh, and Squamish Naitons.

2) **Introduction to Community Relations Team – Alex Coles, VP & GP**

Alex Coles gave a brief introduction to the newest members of the Parkland Community Relations Team; Rajvir Rao and Jessica Bermudez. Rajvir and Jessica both introduced themselves and gave a brief background of their past experience.

3) Introduction to Community Guests – Judy Kirk, Facilitator

Judy Kirk welcomed Brian Clive and Tony Bosello to the CAP meeting. Brian and Tony both have an interest in joining the CAP.

4) Operations Update – Kate Groves, Director of Operations

Kate provided a Safety and Environmental Update, and a Fall Turnaround Update to the CAP:

i) Safety and Environmental Update

- There have been no recordable injuries since the last CAP meeting.
- There were two exceedances since the last CAP meeting of SO2 from the SRU
- There was one reportable spill since the last CAP meeting which was a small amount of Hydrogen released from a compressor to atmosphere on June 9th, reported as required to Emergency Management B.C.

ii) Fall Turnaround Update

- The detailed planning phase is complete; the fall turnaround is expected to begin in October 2021 and complete in November 2021.
- Site headcount will start to increase on dayshift through June. During the turnaround event, there will be increased headcount on both days and nights.
- The Gamma Parking Lot will be used to manage increased headcount.
- Traffic conditions will be monitored, and Parkland will work with the City regarding flaggers at Penzance and Willingdon, as well as the installation of a No Left-Turn sign at Gamma.

Q&A:

Q1. What does "tripped off" mean with regards to an exceedance?

A1. (Kate Groves) Tripped off means that an emergency valve has completely shut off the unit.

Q2. For the fall turnaround update, will the parking lot at Hastings and Kensington be used now that COVID is over and carpooling/shuttling can resume? Can other sites be considered?

A2. (Jonathan Tyler) The lot is currently not available to us, as it was a lease. We do not expect to exceed the refinery parking capacity during the 2021 turnaround. We are not reviewing options for offsite parking for the 2021 turnaround considering factors such as planned peak headcount, existing refinery parking capacity, limited offsite parking options, increased costs associated with offsite parking and worker fatigue management.

Q3. Are there any community impacts with the exceedances? Health or other?

A3. (Alex Coles) For these exceedances, there were no changes to ambient SO2 levels at our local monitoring stations. We cannot comment on health effects, but we do not believe there were any impacts to the community based on the consistent low readings on the SO2 monitors.

5) Health & safety update: Nick Middleton, Health, Safety, and Environment Director

Nick Middleton provided a refinery COVID-19 update to the CAP:

- On-site COVID-19 case count remains low

- Rapid COVID-19 tests are being performed on all out of town contractors and visitors
- Public health performed a follow-up audit of our facility and were happy with the results of the measures we had implemented following the first audit.

There were no questions or comments following this section.

6) Trees at the Refinery: Jonathan Tyler, Planning

Jonathan Tyler provided an overview of the refinery's tree maintenance program, and also discussed the potential for longer-term tree work.

- Interested CAP members attended a fenceline tree tour on May 7, and concerns regarding ivy, landscaping, buffer zone properties, and fence sightlines were raised.
- Annual maintenance on tree threat mitigation has begun at Area 1 and Area 2 and will continue until July 5. This work includes the removal of deadfall, annual trimming, and infrastructure safety trimming.
- Parkland arborists have identified trees of concerns, in line with the National Fire Protection Guidelines
- Parkland is developing a process to inform stakeholders, seek input, and determine a mitigation plan prior to tree removals for fire safety
- Parkland is currently working with firms that specialize in site screening

No questions or comments were raised.

7) VOC Fenceline Monitoring Update: Jem Morrison, Environmental Field Specialist

Jem Morrison provided an update on Environmental & Climate Change Canada's (ECCC) Fenceline Monitoring Program

- The program is required to commence on January 1, 2022, and the first annual report is due on June 30, 2023 and thereafter on June 30th.
- Approximately 30 monitors will be installed along the refinery's fenceline (both Area 1 and Area 2), and samples will be taken every 14 days for each criteria VOC.
- A monitoring plan is to be submitted to ECCC and shared with Metro Vancouver as required by the air permit.

Q&A:

Q1. Would there be a monitoring station on the top of Capitol Hill?

A1. (Jem Morrison) There are no plans for one to be on Capitol Hill – this program is based on the fenceline of the facility, but it is something that we could look at. The Eton. St. monitoring station does monitor for Benzyne.

Q2. Is this required by the government? Why did this type of monitoring not occur in the past?

A2. (Jem Morrison) Yes, it is required by regulators and published by Environment Canada. Fenceline monitoring programs have been running in the U.S. since 2018 but are relatively new to Canada.

A2.1. (Metro Vancouver) Metro Vancouver does monitoring at Eton St. for hydrocarbons. If there are elevated levels of hydrocarbons, we receive a trigger notification. Metro Vancouver participated in the federal program; On a 1 in 6-day cycle, there is a 24-hour sample taken and the air analysis is sent to the federal government. This data was used as part of a UBC health study and supplemented with another review from Fraser Health. The fenceline monitoring is a great advancement beyond that.

Q3. Has the number of monitors grown over time? Has the quality of the sensors improved?

A3. (Answered by Metro Vancouver) The number of sensors is prescribed by the methodology. They are placed at a certain number of degrees along the facility fenceline. There are different levels of monitoring equipment. The ambient monitoring station has the highest level of monitors. Along with that, much work has been done to utilize less expensive options; Metro Vancouver did a study to assess some of the citizen science monitoring equipment on particulate matter. We are looking at employing these low-cost options and can start having more confidence in less expensive monitoring equipment.

A3.1. (Alex Coles) Every refinery is obligated to report VOCs released as a federal requirement. Parkland has participated in that as long as it has been required (decades). As part of this, there has been work done on site to reduce VOCs from improved technologies (roof seals on tanks, emissions reductions at the truck loading and marine loading rack, etc.). Over the years, emission reduction has been our focus. Fenceline monitoring is the latest technology to examine the impacts of VOCs at our fenceline.

Q4. To clarify, these are "dinner plate-sized" cylinders with passive monitoring tubes in them, which are collected every 14 days, re-installed, and will be there perpetually? Would an interested party be able to see them on the fenceline?

A4. (Jem Morrison) Yes, sampling will be in place 365 days per year, and the sampling timeline for each tube is 14 days. Some of the monitors will be visible to the public.

8) Questions regarding methane emissions from the CAP

Vicki Bowman provided preliminary answers to the questions raised by CAP regarding methane prior to the meeting. Questions included:

1) Could Parkland explain the increase in CH4 (methane?) from 200 (2004) to 4050 (2018)?
    - Vicki Bowman explained that despite the change in the reported numbers, they do not represent an increase in methane emissions over time. What has changed are the reporting / calculation methods.
        - Over the years, GHG regulations and reporting standards have evolved and become more robust to include additional sources.
        - Since 2010, as per provincial reporting requirements, our GHG emission calculations have been reviewed and verified by an accredited third party GHG verification body. This has helped to ensure emissions are reported accurately and in alignment with the regulatory requirements of the time.
        - It should also be noted the reported methane emissions are expressed in CO2 equivalent, which is the actual methane emissions multiplied by the global warming potential (25 for methane).
        - In summary, reporting of methane has advanced since 2004, and are more accurate than they would have been at that time.

2) Could Metro Vancouver or Parkland describe what percentage of total methane production for Metro Vancouver is emitted by Parkland?
    - Metro Vancouver answered that Parkland accounts for approximately 1% of the total CO2 equivalencies from methane (approximately 4000 tons of CO2 equivalencies). To give context to this, Metro Vancouver stated that landfills are the most significant source of methane, at around 190,000 tons of CO2 equivalencies, or about 50% of the total.

3) Could Metro Vancouver direct us to studies on the health effects of methane?
    - Metro Vancouver explained that this question will be answered as a follow-up, with information provided by the health authorities.

4) How is methane emitted from the refinery – how far into the neighborhood do emissions extend?
    - Vicki Bowman outlined how methane is emitted from the refinery; Methane is released primarily from Parkland's oil-water separators in the WWTP, storage tanks, flare gas, equipment leaks and the FCC. We do not have a measure of how far these emissions would extend into the neighbourhood.

5) Is there a way of measuring methane emissions along with the VOC monitors?
    - Metro Vancouver explained that given the relatively low contribution of refineries to methane emissions, it isn't standard to incorporate methane into fenceline monitoring.

9) Metro Vancouver Update: Jason Mushtuk

Jason Mushtuk provided an update on behalf of Metro Vancouver, found in **Appendix 1.**

No questions or comments were raised.

10) Roundtable:

Roundtable questions and comments:

1) What does the odour survey involve?
    - Metro Vancouver explained that they go out to a location if there is reason to believe they could observe/track the odour in real-time. Findings are documented and reported.
2) Is there any further development on the Burnaby Emergency Notification System?
    - Nick Middleton answered that the Emergency Notification System is being developed by the City of Burnaby. Parkland will reach out and see if there is an update from the City.
3) What is the turnaround in the fall for?
    - Kate Groves answered that Parkland is doing a 5-year maintenance cycle on one of the units at the plant and doing maintenance in other areas of the plant as well.
    - The event this fall is not as large as the one in 2020. Headcount will be approximately 100 less per shift at it's peak, in comparison.
4) Are trees replanted when they are removed?

- Jonathan Tyler answered that where possible, we do replant. There are also bylaw requirements that we must follow, such as 1-for-1 or 2-for-1 replacement. This will be part of the discussion that informs our larger plan.

Closing comments: Alex Coles

Alex closed by complementing a productive meeting and thanked the guests for joining.

Meeting ended at 7:05pm.