MINUTES OF THE ENVIRONMENT MONITORING TEAM MEETING HELD
TUESDAY 6th August 2019

Hosted by Dow Chemicals

Present:

Resident, EMT Members	Qenos
Chris Ryder	Duncan Laslett: Olefins Operations Manager
Mark Furlan	Nicholas Young: Polymers Operations manager
Tim Symonds	Les Harman: Qenos Environmental Adviser
	Alan Findlay: Environmental Health Coordinator
Dow	
Justin Jones: Dow Altona Site Leader (CHAIR)	**Other**
Taimar Hazou: Dow Chemical Public Affairs	Tim Albers – ERGT Australia
Camillo Coladonato – Dow Remediation Manager (ANZ)	
Enviropacific Services	**Apologies**
Tristan Roberts - Manager - Solve	Sandra Wilson: Hobsons Bay
	Rob Berton : Qenos
CWW	Erin Finnegan : Resident
Joe Messina	EPA, Worksafe and ESV had indicated that they would not attend

1. Introductions

Justin Jones opened the meeting @ 18:07 He welcomed everybody and an overview of amenities and what to do if the emergency siren sounded. A round of introductions was completed prior to proceeding and apologies noted.

2. Feb EMT minutes

Les noted that there were no actions arising. Couldn't call up minutes as internet access not working.

3. Agenda review and discussion

Justin invited comments or discussion points.

Tim Symonds - didn't have particular points but would ask as they arose through the meeting.

Chris Rider - Had become aware that there was a broken sewer/stormwater line in the community that was taking in groundwater and would like to understand it. Camillo noted that he would discuss in his groundwater update.
Mark Furlan - Had noted that odour was a bit more prevalent recently. Duncan noted he would discuss this.

4. 2018 Company Performance Reviews and General Updates

Dow Report

Justin Jones discussed the Dow announcement to shut down production at Altona. The decision was based on the competitiveness of the Dow site compared to other larger overseas Dow sites. The Altona sites scale would not justify reinvestment that would be needed to keep the site operational.

Site would reduce from 37 to 5 employees as a result with demolition of the plant completed in 2020.

The site will still be used for warehousing and distribution of Dow products with locally produced product run out later this year.
The site Remediation activities will continue for a number of years. Dow is not planning to sell the site, but will look to attract more tenants.

The site had recently had a medical treatment injury, the first one for three years.

Dow is currently preparing their Annual Performance Statement and National pollutant Inventory reports.

Justin noted that the site was 32 hectares in response to a query from Tim

Solve Report

Tristan Roberts had hosted a site plant tour prior to the meeting gave the Solve update.

Solve had processed 31,000 Tonnes and was operating 6 days a week with the workforce increased to 27.
They are continuing to do Proof of Performance (POP) testing to support the addition of new waste streams to their License.
There were no issues to report since the last meeting.

The Solve site has undergone some significant maintenance and enhancement works since the last meeting including

- Installation of new internal concrete walls inside the soil receival building to increase its soil capacity.
- Phase 1 of a Burner Management System (BMS) was completed in June. Phase 2 with the addition of a Process Logic Controller is scheduled for December 2019.
- With the increased processing of soil more treated soil inventory is required. Two All Shelter units will be installed. These shelters have containers of three sides with a domed tent style roof with the front being open. The treated soil has 15-20% moisture and with 3 sides enclosed no dust issues are anticipated. Camillo asked whether any excavation was needed to install the All Shelter units. Solve will liaise with Camillo about any excavation required.

Solve had surveyed the principal transport companies in response to concerns about using Millers Road being used being raised at the May ACNCG.

Of 76 drivers surveyed one had used Millers road when directed there by traffic management due to an incident on the freeway. Millers Road is a less desirable route for trucks that Grieve Parade or Kororoit Creek road due to its travel time as a base case.

Solve has started processing the Fitzroy Gasworks soil. Tristan noted that principal contaminants were Poly Aromatic Hydrocarbons (PAH's) an Total Petroleum Hydrocarbons (TPH) in response to a query from Joe.

Qenos Report

Duncan Laslett introduced the Qenos report

Nick Young reported that the Plastics site line 1 had had a dust explosion and subsequent fire in a fluff bin (100 T capacity silo) on Sunday 28th of July. The shift enacted the emergency response procedures including calling the MFB. The fire was under control by the time the MFB arrived and line 1 shutdown. No injuries resulted from the event.

Worksafe were notified and have visited site and are being kept abreast of the incident investigation.

An investigation into the incident and preparation to resume production has been in progress since. A static discharge has initiated the event; however the specific location hasn't been identified due to the subsequent fire damage.

Line 1 will have nitrogen purges on it ensure a safe restart of production to eliminate any further events until the investigation is completed and remedial actions implemented.

Taimar Hazou enquired about Community notifications for the event. None were required in this instance as there was no potential community impact. Taimar will have some further discussions offline to understand how the community notifications are initiated.

Duncan discussed Qenos SHE performance since the May ACNCG

There were no license issues, 5 flare noise complaints and two effluent treatment plant odours. (Detailed complaint discussion later in presentation)

There have been no reportable injuries at Altona and the Altona Contractors reached a 2 years Injury free milestone on July 5th.
Qenos Botany Operations had two injuries during this time.

Les discussed community interface activities listed in the presentation.

Duncan gave the regulatory update for Qenos with nothing to report for EPA and CWW.
Worksafe have been on site several times in relation to employee queries related to the Resins site restructuring. Qenos also has two Improvement notices from Worksafe.

- Complete an Olefins site Fire Water system test by end of 2019 after the initial test did not fully satisfy the leakage rates.
- Install a permanent rain shelter roof over the Resins Site PE wax bin to prevent any rain ingress by year end. Currently has a temporary roof over the wax bins while approvals are gained for the installation of a permanent structure.

Duncan presented the Pressure Safety Valve (PSV report). he explained the history of the trend and noted that there had been two lifts since the last meeting. Operating the plants within the Safe Operating Window has almost eliminated lifts due to normal operation. Events such as unplanned equipment shutdowns or utility outages were that main causes now.

Alan Findlay gave an overview of the odour audit conducted on 29th March at the Olefins site with two community representatives and three Qenos personnel. The Olefins site is much closer to the community than the Plastic's or Resins site and its products are more odourous and likely to impact neighbours.

The odours noted on the day were generally low and would not have been expected to impact off site. The Effluent treatment plant had the strongest odours with ratings of 4-6 on a 1 to 10 scale. The ratings were similar to 2018, and lower than 2016 levels. Chris commented that the audits are somewhat subjective and dependant on

ambient conditions. Mark commented that odours during the audit had been low, but had been higher recently where he had experienced odour more often.
Alan explained that we used the ppb Rae a sensitive hydrocarbon detector to also get some objective measure of odourous emissions, which has a good correlation with assigned odour ratings,

Duncan gave an update on the status of the projects to reduce odour from the Effluent Treatment Plant.
The new covers have been fitted to the Final effluent sump and have reduced the odours from that source.
At Manhead 1 and the After-bays some openings have been sealed up as shown in the presentation. The Manhead 1 Activated Carbon unit design is almost completed with installation by year end. The design of high volume carbon filter to be fitted on the After-bays will be completed by year end with installation in 2020.

Duncan also noted that detailed planning is underway to clean out and de-sludge the Effluent Treatment Plant and repair the oil skimmers in 3Q. Work is expected to start in 2H of August and will take 3 to 4 weeks. There is higher potential for odour during this activity and planning is putting measures in place to minimise this.

Duncan presented the flare system review. He described the controls used to manage flare impact which included alarms for flare flow and noise which assist the operators to identify potentially noisy flare operation. Flaring overnight is minimised to the extent possible to minimise impact. The level of significant flaring for planned flaring has been reduced with unplanned flaring being the main cause.

When significant flare operation is predicted to be required either on a planned basis or a response to recover operation from an unplanned event Qenos can notify the community and EMT members by website notification. Tim suggested that use of social media such as twitter or Facebook would be more effective and asked whether Qenos used social media. Qenos has previously considered social media but not adopted it at this time due to concerns about how we would manage this forum.

The number of flare events in the first half of 2019 was significantly lower than the 2018 flare rate. Qenos currently has no planned major activities until 2021 and focus will be on maintaining reliable operation to minimise unplanned flaring events.

An EIP project is currently being implemented to trial a new emissivity camera which should deliver smokeless combustion with less steam and less noise.

Chris raised a query about whether a different technology such as ultrasonics could be used to proactively predict the amount of steam required to manage the flare. Les responded that vendors had shown us the latest flare control systems that use flare flow and composition to control the optimum flare steam proactively. Extensive modifications to the Olefins flare system would be needed to install this technology.

5. Regulator updates

Joe Messina from CWW noted that there had not been any issues.
Worksafe and EPA unable to attend meeting and did not provide any updates.

6. Environment Action Line report

Alan presented the Environment Action line report.
Qenos had accepted two noise complaints in June for flare noise when Compressor C 353 had an unplanned shutdown. Two complaints for odour from the Olefins Effluent Treatment Plant were confirmed and accepted with a further three complaints which were not confirmed were classified as Plausible.

7. General Business

Tim enquired about the recent flaring at Mobil refinery and whether Qenos were still taking the fuel gas stream that avoided Mobil flaring. Duncan replied that we hadn't been receiving the fuel gas stream from Mobil recently as it wasn't available. The flaring at Mobil as far as he knows is unrelated to the fuel gas stream.

8. Dow Groundwater Update.

Camillo presented the Dow Groundwater update that is attached. He noted that in some places it is quite technical and assumes a general knowledge of the history of the project. Camillo acknowledged that Tim just recently joined the ACNCG forum and therefore was seeing this update for the first time. If wanted by Tim, Camillo would be happy to provide some further clarifications after the meeting or on a specific session with Tim.

The presentation commenced with a summary of the current regulatory drivers behind the groundwater remediation project.
The Dow site has a number of different remediation areas at the South end of their site that are being managed under the Clean Up Plan (CUP). The CUP was developed in response to an EPA Clean Up Notice (CUN) received in January 2016. The CUP was reviewed and endorsed by two statutory auditors and subsequently approved by the EPA in April 2016. The CUP will be due for a five-year review in April 2020.

The Northern section of the site has a Pollution Abatement Notice (PAN) to carry out a Site Assessment. For that area there was a Phase 1 desktop assessment completed in 2018. After that assessment Dow received a nee PAN to conduct a Detailed Site Assessments. The field component of that work has been conducted in early 2019. The final report is nearly complete and will be submitted to the EPA by 30 August 2019.

Camillo then gave an update of progress in each area covered by the CUP with positive progress in each. For each area Camillo outlined the work in progress, summarised the activities completed since last year's update and talked about works planned for the remaining part of 2019 and 2020.

Areas of particular interest were

1 Remediation of mercury from the former Chloralkali plant is in progress. A large 80*50 metre tent with vapour extraction has been set up over the area to control emissions generated during the remediation works. The tent is under negative pressure and the emissions from the tent are treated by activated carbons prior to be discharged in the atmosphere. Camillo noted that the mercury was confined to the soil in response to a query.

2 The start-up of Radio Frequency Heating system (RFH) in the former Ethylene Dichloride (EDC) Plant. RFH is a groundwater remedial technology based on the use of radio energy to heat up the Groundwater to about 80^0 C which accelerates a chemical reaction called hydrolysis capable of breakdown the contaminants present in groundwater. He has gained internal approval for the installation of 261 Solar panels on site to power the RFH system.

3 Camillo noted that the Off-site monitoring was showing a stable groundwater plume, stable or decreasing trends and there was no impact to residents. A deep sewer along Civic Parade still intercepts the shallow groundwater aquifer preventing migration of any contaminants past this point. This relates to the query by Chris about a sewer taking in groundwater. Joe Messina from CWW noted that they kept watch on the water quality in the sewer to ensure that it did not have an impact on the Altona Treatment Plant and the customers who took recycled water from the plant.
Camillo also updated on the status of the offsite bioremediation to be constructed in the commercial area along Ajax and Slough road in the Altona community. Since last year's update Dow completed the design of the system, commenced a tendering process and obtained most of the required permits with the exception of the one(s) expected from Hobsons Bay City Council. Upon receiving the last permit Dow will be able to complete the tender process and commence the construction of the system.

9. Meeting Close.

8:10 Meeting closed by Justin