

**EIP5 - Environmental Action Plan**

Year end Expectation

12 completed

8 Carry over

60% complete

Ref No	Environmental Impact	Site	Details,	Expected result	Owner	Due Date	Current status	Status
6.22	Community Noise	Plastics	The gearboxes on the recycle compressors are one of the noise contributors to community noise from Qenos. The existing acoustic enclosures are not effective at reducing the noise from this source. New enclosures need to be designed and fitted	The recycle compressor gearboxes will no longer be audible in the community.	Plastics	2016	The improved acoustic covers have been fitted to the gearboxes. The overall noise levels measured at the machines show that they are at least as effective as the original covers. An acoustic study of the compressors in October 2015 confirmed that the covers provided 3 dBA of abatement. Extensions to the acoustic covers cover the coupling guard down to the baseplate were fitted in September 2016.  Qenos believe that further improvements can be made by fitting new acoustic covers that have a snugger fit to the baseplate and motor. This will be looked at in 2017.	Completed
6.23	Community Noise	Plastics	The gearboxes on the recycle compressors are one of the noise contributors to community noise from Qenos. The existing gearboxes are being replaced for reliability improvement. We will be aiming for the new gearboxes to be quieter reducing the potential for off site impact	New gearbox generating less noise than existing gearbox	Plastics	2016	New gearbox fitted and is quieter. Formal assessment of noise levels to completed once new covers are installed	Completed
6.25	Community Noise	Olefins	Decide whether Lummus furnace burners will be replaced, made redundant or have noise treatment installed. If burners are to have noise treatment fitted develop the scope for the works.	Scope of works for any noise abatement of the lummus burners is completed if furnaces are to stay in operation.	Olefins	2016	Engineering review completed and plan to shut down the Lummus furnaces at end of 2016. Some enabling projects to be completed prior to confirming their shutdown.	Completed
7.5	Odour	All	Conduct annual Odour Audit of each site (Ongoing item - same number as previous)	Assessment of odours completed.	SHE	2016	Audit completed on 16th April	Completed
7.13	Odour	Olefins	Trial the use of chemical additives as a method of reducing odours in the sewer and effluent treatment plant during abnormal events.	Evaluation completed	SHE	2016	Have purchased Amerscent 50 to trial effectiveness. CWW have composition and are looking at allowable levels to go in trade waste discharge	Carry Over
9.62	Water and Wastewater	Olefins	Enhance nutriox dosing and sulphide monitoring of Olefins Dirty water sewer	Reduction of sulphide excursions in Olefins trade waste.	Olefins	2016	Calcium nitrate has been selected as the preferred chemical additive for dosing based on the 2016 performance. The OFI for enhanced dosing of Calcium nitrate is out.	Carry Over
9.63	Water and Wastewater	Plastics	Trial the effectiveness of a floating skimmer and pump to remove fluff and pellets from the storm water channels compared to the existing elevator removal system	Decide whether to use floating skimmer a pump on a permanent basis or to retain and maintain the existing elevator system.	Plastics	2016	Initial trial in 2015 had issues with pump blockages. A larger pump was sourced and initial trials with larger pump had issues with the skimmer blocking. Reviewed the type of skimmer used at Qenos Botany and a new skimmer similar to what they use is on order with delivery expected in the next week	Carry Over
9.64	Water and Wastewater	Plastics	When filling up and blending the blend bins, pellets escape out of the exhaust vent. This creates a slip hazard along the road and has the potential to be washed down the storm water drains. Installing modified vents will stop the pellets escaping.	Natural blend bin vents modified stopping pellet discharge from the vents	Plastics	2016	The blend bin levels are at times filled higher than the target level. The blend bin Level Alarms are going to be re-configured to activate based on the blend bin weights rather than DCS calculations. This is expected to be completed this year. A design is also being developed for cyclones to be fitted to the blend bin vents.	Carry Over
9.65	Water and Wastewater	Plastics	There is a screen in place of the delumper which is a set of horizontal bars to screen out the larger pieces on RX2. This system of screening requires operators to frequently manually open a hatch just above the screen to physically remove the lumps from the bars. This process also results in the release of PE fluff powder to atmosphere. The lump diverter will carry out this activity and will catch all lumps and residual PE fluff in a skip. The lump diverter is expected to be provide effective removal of lumps reducing other downstream blockages which currently result if further loss of PE fluff to grade when clearing them.	Lump separator installed and operational	Plastics	2016	Design completed and fabrication started in May . The delumper is on site waiting for installation which will take several days. This is being scheduled for the MDEA outage in February 2017.	Carry Over
10.27	Soil and Groundwater	All	Conduct annual groundwater monitoring (On-going item - same number as previous)	Annual GW monitoring completed and assessment of any changes is completed	SHE	2016	Report delivered to Qenos in early January	Completed
10.35	Soil and Groundwater	Resins	Clean and inspect Emergency lagoon and repair or install new liner as necessary	Emergency lagoon clean and inspect,repair or new liner instalation completed	Resins	2016	0	Completed
10.38	Soil and Groundwater	Resins	Clean and inspect settling lagoon and repair or install new liner as necessary	Settling lagoon clean and inspect,repair or new liner instalation completed	Resins	2016	0	Completed
10.39	Soil and Groundwater	All	Review all stormwater systems for adequate marking, refresh all marking and conduct an awareness campaign to improve understanding of stormwater contamination and its impact.	All stormwater inputs clearly marked and awareness campaign implemented.	SHE	2016	All sites now remarked	Completed
11.14	Flares	Ole, Pla	Carry out annual flare noise testing to verify flare tip noise performance is at baseline. ( Plastics & Olefins)	Olefins flare < 85 dBA at Flare walk over , Plastics flare < 80 dBA at West side of LPPE warehouse	SHE	2016	Olefins Completed: Flare noise peaked @ 82 dBA on 9th May with 23tph flare flow with maximum steam. Plastics Monitored recently during a start up, but an unintentional change to our meter by the manufacturer means it no longer retains time history. Will have to manually measure at the next opportunity.	Carry Over
11.2	Flares	Olefins	Reviewed Planned Flare Events As Per Olefins Flare Analysis and review Flare Alert Tool Data And Identify Improvement Opportunities to reduce. Assess whether flare impact has been reduced to an acceptable level and whether further flare risk reduction is needed.	Review delivered to EMT and minuted.	Olefins	2016	Completed at Dec EMT	Completed
15.9	All impacts	All	Develop a consultation program with the ACNCG community members, Hobsons Bay and the local community to identify the Aspects of concern.	The Aspects and their potential Impacts with highest potential to concern future neighbours are identified	SHE	2016	Engagement with residents have identified noise odour and health impacts from emissions as local concerns . The recent Open day where most of the public who attended were from outside the region that could be impacted by noise, odour and emissions were concerned about marine plastics pollution and the level of recycling, reuse of plastics.	Completed
14.8	Training	All	Conduct Environmental & Sustainability Awareness training sessions	Environmental awareness sessions conducted for all groups.	SHE	2016	2016 focus is on storm water protection and improved waste management. Olefins shift completed. Contractor completed. Support personnel at Polymers and Olefins completed. Polymers shifts scheduled for October cycle	Completed
16.17	Environmental Audit and Assessments	Olefins	Conduct Olefins Off sites and Utilities Risk re assessments	Assesments completed	SHE	2016	Operations are not able to support this activity by year end when the people are not available. This is due to the late scheduling of the activity. It will carry over into 2017 and will be scheduled as soon a practical after the MDEA outage in February	Carry Over
16.18	Environmental Audit and Assessments	All	Implement audit recommendations scheduled for 2016	2016 audit actions completed	SHE	2016	As per audit action status sheet	Carry Over
16.19	Environmental Audit and Assessments	SHE	Map Qenos Environment management system against ISO 14001 and develop a transition plan	Plan to achieve Iso 14001 accreditation in 2017 developed	SHE	2016	Mapping completed. Expect it will take 4 weeks to document EMS updates in 2017. This is scheduled for 1 H of 2017 to allow time to communicate changes and develop system links to be ready for accreditation in 2018	Completed