

EIP5 - Environmental Action Plan

Ref No	Environmental Impact	Details,	Expected result	Owner	Due Date	Current status	Status
6.26	Community Noise	Assess the feasibility of improving the RX compressor gearbox acoustic enclosures. If considered feasible identify a supplier who can assist with the design and installation.	Assessment of enclosures completed and recommendations from assessment implemented.	Plastics	2017	No changes recommended	Completed
7.5	Odour	Conduct the annual Odour Audit.	Audit completed and results fed back to EMT	All	2017	Odour audit completed on 8th April 2017	Completed
7.13	Odour	Trial the use of Amerscent 50 as a method of reducing odours in the sewer and effluent treatment plant during abnormal events. Approval for the Use of Amerscent 50 is required from CWW. Carry over item from 2016	Trial completed	Olefins	2017	Trial dosing system installed. Procedure to manage the dosing developed. The trial will be conducted at the next T-152 shutdown which may be this year or in 1Q 2018	In Progress
9.61	Water and Wastewater	Install flow indication on water flush to D-111 to reduce the need for cooling water and a temperature exemption from CWW during SCAL-1 decokes.	A flow control system is fitted to D-111 to enable the design decoke water flow of 2.7 KL /hour to be achieved	Olefins	2017	Project completed on 28 June 2017. Decoke on 24 August not requiring any water addition to sewer	Completed
9.62	Water and Wastewater	Install new nutriox dosing facilities at E-964 drain to DWS to provide better control of Sulphides in trade waste. Carry over from 2016	New facilities in place and effectively controlling sulphides in trade waste	Olefins	2017	Project designed. Getting quotes from suppliers	In Progress
9.63	Water and Wastewater	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 Carry over from 2016	Decide whether to use floating skimmer and pump on a permanent basis or to retain and maintain the existing elevator system.	Plastics	2017	Floating skimmer tested and removes fluff from channel effectively at flows of 15 kl/hr pumping rate. A practical method of collecting the skimmed fluff has not been identified and this method of fluff removal is not deemed practical. The existing fluff removal system will be maintained.	Completed
9.64	Water and Wastewater	When blend bins are filling there is potential to overfill them which leads to pellets escaping 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. Current plan is to interlock bin weights to shut-off the feed into bins to prevent over-filling. Carry over from 2016 that has been modified.	Interlocks that stop blend bins filling when the bin has reached its target weight to be installed.	Plastics	2017	Work that was completed to for this project includes: Overhauling the natural blend bin load cells (both Line 1 and Line 2) so that we were able to measure the contents Redevelopment, completion, and monitoring of the calibration process to ensure accurate measurements Development of new alarms to trigger blend changes The blend changes are still triggered by alarms, however, there are now two alarms and the change is triggered by the total contents in the bin as opposed to the additional production. As can be seen in the attached before and after trends, the project has successfully reduced oversized blends, which has in turn reduced the pellets venting out. Commissioning and implementation of blend alarms	Completed
9.65	Water and Wastewater	Install a lump separator on the outlet of LPPE RX2 to replace the current screen system. This system requires operators to frequently manually open a hatch to remove the lumps. This 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 effective removal reducing downstream blockages and further loss of PE fluff to grade when clearing them. Carry over item from 2016	Lump separator installed and operational	Plastics	2017	Project handed over on 12 May 2017 and working effectively	Completed
9.66	Water and Wastewater	Roll out operation clean sweep to sites 1. Management sign clean sweep pledge and the program communicated to sites as part of the environment awareness program. 2 Complete site audits to identify all pathways for potential pellet, fluff loss from sites. 3 Add any areas of concern to the Environment Risk Register with links to QHRAD and OFI system. 4 Update site environment inspection checklists to support clean sweep	All four steps completed.	Pla, Res	2017	Qenos team pledge developed. Plastics and Resins leadership teams to sign pledge at next POIC	In Progress
9.67	Water and Wastewater	Install new design rupture panels on the fluff bins. (Installed on two bins last year). The original design panels have been a problematic source of fugitive fluff emissions with leaking seals and cracks for fatigue failure.	New Rupture panels fitted on all fluff bins	Plastics	2017	Installation completed and there is a noticeable difference in the amount of fugitive PE fluff in the fluff bin area	Completed
9.77	Water and Wastewater	Engage with Qenos customers about Operation Clean Sweep to see if there are opportunities to reduce the risk of pellet loss. Expectation is to encourage customers to use the Clean Sweep program to reduce pellet loss where roisaks are identified.		SHE	2017	Not started	Carry Over
10.27	Soil and Groundwater	Conduct annual groundwater monitoring (Normally completed in November)	Annual GW monitoring completed and assessment of any changes is completed	All	2017	Sampling completed in October	Completed
10.37	Soil and Groundwater	Install leak detection system on Underground diesel tank that complies with AS 4897	Leak detection system installed and operational	Ole	2017	Will be completed in 2018	Carry Over
11.14	Flares	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	Ole, Pla	2017	Verified that Olefins Flare noise didn't exceed 84 dBA during power failure on 25th May. Noise meter accuracy verified against LD 831 soundlevel meter on 21st July. Plastics Flare noise checked on 24th July during RX2 start up and has maximum noise level of 78 dBA	Completed
11.2	Flares	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	2017	No EMT in December will be presented at the first EMT in 2018	Carry Over
14.8	Training	Conduct Environmental & Sustainability Awareness training sessions	Environmental awareness sessions conducted for all groups.	All	2017	Olefins completed in 2 Q. World Oceans day session run with Mat McArthur as guest speaker. Talking about marine plastic pollution and Les Harman talking about waste management. Plastics and Resins completed in October, November	Completed
16.17	Environmental Audit and Assessments	Conduct Olefins Off sites and Utilities Risk and Resins site re assessments Off sites and Utilities are a carry over from 2016	Assesments completed	Olefins	2017	Workshops for Olefins Utilities and offsite completed in 2Q, Resins rescheduled for 1H 2018	In Progress
16.20	Environmental Audit and Assessments	Update Qenos EMS documentation and processes in preparation for ISO 14001 accreditation in 2018	Qenos EMS updated	SHE	2017	Documentation updates about 50% completed Expect to complete in 1H 2018	In Progress
16.21	Environmental Audit and Assessments	Practice since 2003 is to have an annual Environment Action Plan. Environment improvement projects that require engineering design and capital allocation have proven problematic to complete as all capital and engineering resources are allocated on a longer planning basis. The five year look ahead will pick up the environment OFI's that are generated by the Environment Risk Registers and QHRAD processes.	A five year EIP plan is in place for 2018 and beyond.	SHE	2017	The Environmental Goal stewardship group will be assigned to all Projects that are to be included in the EIP. The EIP due date will be entered as the target completion date for the project which can be set up 10 years ahead for low priority projects. All projects identified by the Environment risk assessment process will be included in the EIP by selecting the Environmental Goal stewardship group. This process will effectively provide a 5-10 year plan for environment projects. Administrative activities such as environment training, routine reporting etc will be retained on the existing spreadsheet	In Progress