## EIP5 - Environmental Action Plan

Year end Expe		mental Action Plan Carry over		Complete	
Environmental	Details,	Expected result	Owner	Due Date Current status	Status
Impact	e Assess the feasability of improving the RX compressor gearbox acoustic enclosures. If considered feasible identify		Plastics		0 Not started.
	a supplier who can assist with the design and installation.	recommendations from assessment implemented.			
.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
3 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 and waiting for a period of higher sewer odour to test the effcetiveness of the Amerscent 50	In Progress
61 Water and Wastewater	Install flow indication on water flush to D-1111 to reduce the need for cooling water and a temperature exemption from CWW during SCAL-1 decokes.	A flow control syetem is fitted to D-111 to enable the design decoke water flow of 2.7 KL /hour to be achieved	Olefins	2017 Project Project completed on 28 June 2017. Decoke on 24 August not requiring any water addition to sewer	Completed
62 Water and Wastewater	Install new nutriox dosing facilities at E-964 drain to DWS to provide better control of Sulfides in trade waste. Carry over form 2016	New facilities in place and effectivly controlling sulphides in trade waste	Olefins	2017 Project designed . Getting quotes from suppliers	In Progress
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 form 2016	Decide whether to use floating skimmer an pump on a permanent basis or to reatin 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. Need to develop better technique of to filter fluff from pump discharge. Filtration with Geofabric by gravity is not sustainable.	In Progress
.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 item over form 2016 that has been modified.	Interlocks that stop blend bins filling when the bin has reached its target weight to be installed.	Plastics	2017	0 Not started.
.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 blocakages 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
.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 audites 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 supprt 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
67 Water and Wastewater	Install new design rupture panels on the fluff bins. (Installed on two bins last year). The origobal design panles 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 is in progress	In Progress
.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 roiisaks are identified.	(	0 SHE	2017	0 Not started.
.27 Soil and Groundwater	Conduct annual groundwater monitoring( Normally completed in November)	Annual GW monitoring completed and assessment of any changes is completed	t All	2017 Due in November	Not started.
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	0 Not started.
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
1.2 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 Due Dec EMT	Not started.
15.9 All impacts	Identify the Qenos Aspects that are predicted to be the main community concerns about Qenos operations in 2020 and beyond.	The Aspects and their potential Impacts with highest potential to concern future neighbours are identified	All	2016 Engagement with residents have identified noise odour and kealth 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 nois, odour and emissions were concerned about marine plastics pollution and the level of recycling, reuse of plastics.	In Progress
.15 Environmental Audit and Assessments	Carry out Environmental Risk Re assessment Plastics	Plastics Environment risk assessment completed and items added to Risk Management database	Plastics	2015 Completed .Reaffirmed need to improved PE fluff and pellet containment and reduction of reactor noise, and communication of Ground flare activation.	Completed
18 Environmental Audit and Assessments	Implement 2013 Accredited licence audit actions	2016 audit actions completed	All	2016 As per audit action status sheet	In Progress
.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.	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 dat will be enetred as the target completion date for the project which can be set up 10 years ahead for low priiority projects. All projects identified by the Environment risk assessment process will be included in the EIP by selecting the Environmental Goal steawardship group. This process will effectively provide a 5-1 year plan for environment projects. Administrative activities such as environment training, routine reporting etc will be retained on the existing spreadsheet	e I
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