Biffa Cardiff WMRC – Report into Activities 2014

A) Review of Monitoring

Emission monitoring of pH at point source (S1) discharge to sewer – see attached form.

B) Management System ISO14001 Action Plan

1) Increase volume of waste recovered or recycled by 5% year on year
   a) Establish baseline – see table below for transfer station 2014

	Q1	Q2	Q3	Q4	**Total 2014**
Total Waste Processed (T)	802.75	689.63	753.68	631.73	2877.79
Total Recycled (T)	320.94	268.82	369.58	301.20	1260.54
% Recycled	39.98%	38.98%	49.04%	47.68%	43.80%

   b) Liase with third party recyclers with a view to recycling plastic drums – ongoing. Relationship developed with Tradpak, Fenton Packaging, Wastecare and EarthMinded for drum refurbishment and remanufacture.
   c) Monitor and record volumes and weights of recycled materials via GED – ongoing

1260.54 Tons Recycled in 2014 represents a significant overall increase of 506.6 tons (67.72%) over 2013. As a percentage of total waste processed this represents a net 11.06% increase in overall recycling rate of all total waste processed, over 2013. This is due to new recycling and waste to energy technologies, in the main part through use of TFS routes into Europe opening up through 2014. We now have commercially viable recycling routes for solvent contaminated rags, wipes and sludges, contaminated packaging/containers and Laboratory smalls chemicals. We anticipate more TFS routes opening up among more varied operators as technology advances to increase the variety of waste streams able to be put into a waste to energy route.

2) Evaluate energy usage, monitor and reduce consumption, reduce by 5% per unit of mass processed
   a) Assess purchased energy for previous 12 months

Year	Energy Source	As Delivered (MWh / year)	Annual CO_2 Emissions to Environment (Tonnes)
2013	Electricity (public supply)	13.10	5.84
2014	Electricity (public supply)	20.51	9.14

3.17kg of CO_2 emitted per tonne of waste processed from electricity usage in 2014 compared to 2.54kg per tonne in 2013. This increase in energy usage is down to an increase in staffing within the office facility rather than directly due to the transfer station operation. The South West commercial team are now based on site which

represents a 100% increase in office staff and associated computing power, heating etc.
Diesel used for the Forklift trucks was 3001ltrs for 2014. This is a decrease of 629ltr compared to 2013. This is due to a change in job roles and operational structure resulting overall in less FLT users on site and close monitoring of FLT efficiency through data gathered by the new units. This is a pleasing statistic both environmentally and commercially especially when normalised against the volumetric increase.

b) Monitor and review progress on energy usage reduction targets – ongoing
c) Review of vehicle routing plans to reduce fuel usage - This function now lies within the parameter of another department within Biffa Chemical Treatment so will not be included on this report going forward
d) Fork lift trucks fitted with software to track fuel usage and efficiency.
e) Vehicle routing plans have been improved through creation of 3 dedicated traffic dispatchers and national transport manager to monitor and develop systems for efficient fuel and vehicle usage -- This function now lies within the parameter of another department within Biffa Chemical Treatment so will not be included on this report going forward
f) Achieve vehicle route density using fleet to perform outgoing loads and backloads – Zoning project in place and results to follow, see above - - This function now lies within the parameter of another department within Biffa Chemical Treatment so will not be included on this report going forward

3) Introduce programme of monitoring and repair for items of site infrastructure and assets
   a) Conversion of Bay into segregated Oxidiser bay – Costed and approved. Due for implementation February 2013 – Completed. Bays have been optimised and provide segregation compliant with BAT
   b) Improve infrastructure on East side of Yard by creating bays to store Non Hazardous Wastes – Costed and approved. Due for implementation February 2013 – Bays have been created, but are currently not being utilised for waste storage pending decision over the permit variation, given the proximity of Curran Embankment re-development
   c) Maintain maximum of 20% stock over 3 months (taken as a weekly percentage of the running 4 week average input) – We have achieved this target in 43 out of 53 weeks and have averaged 15.6% (95.78 drums) of a 615 drums weekly average input

C) Production/ Treatment data

Hazardous waste inputs 2014 – 1719.75 Tonnes
Hazardous waste treated 2014 – 0 Tonnes
Non Hazardous waste inputs 2014 – 1158.04 Tonnes

D) Performance Parameters S5.3

Downtime of pH Probe – 0 days inoperative. See attached form

E) Details of any contamination or decontamination of the site which has occurred.

None