

29 August 2014

Australian Stock Exchange
Company Announcements Office
Exchange Centre
Level 1
20 Bridge Street
Sydney NSW 2000

AnaeCo Limited ABN 36 087 244 228
3 Turner Avenue, Technology Park
Bentley, Western Australia 6102
PO Box 1287, Bentley DC WA 6983
Ph: +61 8 9361 4777
Fx: +61 8 9361 4888
info@anaeco.com
www.anaeco.com

WMRC Project Update - Biological Ramp-up

Highlights

- **Biogas production from early batches exceeding expectations.**
- **Early results from compost analysis show compliance with Australian Standards.**

Following is an update of commissioning activities at the WMRC Project, and specifically progress of Biological Ramp-up^{*1}.

- Ramp-up batch #2 is due for completion on 31 August. This batch comprised 180 tonnes of municipal solid waste (MSW) and represents 17% of nominal batch capacity.
- Biological Ramp-up is proceeding well, evidenced by the increased rate of biogas production. The average rate of biogas production through the anaerobic digestion phases of batches #1 and #2 has been 20.7m³/hr and 31.6m³/hr respectively, with a peak of 150m³/hr. This exceeds our expectations for these early Ramp-up batches.
- The biogas produced is currently being flared as we are waiting for the project principal (an entity managed by Palisade Investment Partners) to complete contractual documentation with Western Power for grid connection works. Accordingly the plant is not yet generating electricity from the biogas.
- The bioconversion cycles^{*2}, and specifically the transitions between phases from aerobic to anaerobic and vice versa, are being managed by the automated distributed control system (DCS) which is performing as designed and meeting expectations.
- A compost sample was extracted from batch #1 and partial analysis has been conducted against the Australian Standard (AS-4454 Compost, Soil Conditioners and Mulches). The results of these partial tests indicate the production of compliant, mature compost from the bioconversion process.
- During batch #1 a minor biogas leak was detected around the roof of one of the two anaerobic process water storage tanks. This tank has been isolated and thoroughly investigated by AnaeCo, the constructor and the tank supplier. Evidence from these investigations points to faulty installation.

The constructor is managing rectification of those defects with the tank supplier.

- Having one of the anaerobic process water tanks offline for inspection and rectification has not halted Ramp-up. We have been able to continue biological growth and conduct bioconversion batches using the second process water tank. However it has hindered progress. To date we have lost 6 weeks progress relative to the original Ramp-up plan. We estimate that by the time rectification is complete and both process water storage tanks are operating together the total delay relative to the planned Ramp-up schedule will be 10 weeks. AnaeCo will be examining all avenues to recover the cost of this lost time.

Commenting on the progress of Ramp-up AnaeCo Managing Director David Lymburn said, “We are very pleased with the results of the AnaeCo™ System in Ramp-up to date. The rate of biological growth and production of biogas in particular are very encouraging. Early compost sample analysis in compliance with Australian standards is also very positive. The slower progress caused by the installation defect in the process water storage tank is a disappointing setback but is not a problem with the AnaeCo technology.”

We previously reported an operational matter requiring attention in the Material Recovery Facility (MRF), i.e. preventing accumulation of very small fine particles in the water cycling through the Wet Density Separation (WDS) system. Since last reporting we have more than doubled the capacity of vibrating screen filters and this has shown a substantial increase in the removal of these small fine solids. We continue to monitor this situation and may make further adjustments as we continue to increase MRF throughput.

Figure 1: A sample of compost extracted from Ramp-up batch #1 is prepared for analysis.



Notes

*¹ Biological Ramp-up is the phase in commissioning operations whereby the stock of anaerobic process water containing the bacterial inoculum that performs anaerobic digestion is expanded from an initial batch of 10m³ to a full facility stock level of 1,500m³. This cultivated expansion occurs in a natural process whereby the bacteria multiply as a result of consuming organic matter. The anaerobic bacterial inoculum are fed with a mixture of organic matter harvested from MSW processed at the AnaeCo™ AWT Plant, and organic rich water taken from the WDS. The expansion of the inoculum occurs at a rate determined by their inherent rate of multiplication and the rate of feeding.

*² Bioconversion Cycle – a period of nominally 21 days comprised of:

- 5 days loading a DiCOM vessel with organic material harvested from MSW, with pressurised aeration occurring during this period,
- transition from aerobic conditions to anaerobic by the removal of oxygen and the introduction of process water containing bacteria active in the thermophilic range,
- 11 days anaerobic digestion, producing biogas,
- transition from anaerobic conditions to aerobic by the removal of process water and biogas, reintroduction of oxygen,
- 4 days aerobic conditioning under pressurise.
- 1 day unloading of stabilised mature compost.

ENDS

For further information, please contact:

David Lymburn – Managing Director

(08) 9361 4777

About AnaeCo

AnaeCo delivers Alternative Waste Technology (AWT) facilities based on the AnaeCo™ System, incorporating the patented DiCOM™ bioconversion process. The AnaeCo™ System includes advanced sorting, recycling, anaerobic digestion and aerobic composting to recycle municipal solid waste (MSW) into renewable energy from biogas, agricultural grade compost and recyclables such as steel, aluminium, glass and plastics, thus maximising diversion from landfill and ensuring social, economic and environmentally sustainable management of MSW.

The AnaeCo™ System enables resource recovery intervention closer to source, with enhancement of existing waste transfer stations now a viable waste management option. AnaeCo's experienced team provides design, and commissioning services for AnaeCo™ AWT facilities.

For further information go to www.anaeco.com

About the WMRC Project

The WMRC Project involves the construction and commissioning of an AnaeCo™ AWT Plant at the JFR McGeough Resource Recovery Facility in Shenton Park, Western Australia.

The JFR McGeough RRF is a solid waste transfer station owned and operated by the Western Metropolitan Regional Council.

The AnaeCo™ AWT Plant is an asset owned by Funds managed by Palisade Investment Partners Ltd and is contracted to receive 55,000tpa of MSW.

The WMRC Project is the first full operational scale installation of the AnaeCo™ System and is a transfer station retro-fit occupying less than 4,000m².



Figure 2: AnaeCo™ AWT Plant at WMRC JFR McGeough Resource Recovery Facility, Shenton Park, Western Australia