

## **Maximizing Biogas Production for CR&R's Fleet of Collection Vehicles**

### **Eisenmann's high solids anaerobic digestion technology to convert organic waste to compressed natural gas**

Stanton, CA - April 3<sup>rd</sup>, 2014. The design and engineering phase of CR&R's anaerobic digestion project is in full swing. The planned facility in Perris, CA, is permitted to process over 80,000 tons of organic waste per year in phase one and expandable to process over 300,000 tons per year in three additional phases, making it one of the largest anaerobic digestion projects in the US.

Expanding on their state-of-the-art recycling processes, CR&R will integrate the new plant into their existing operations. Feed for the new system will include green yard waste and food waste which requires a robust, flexible digestion process to ensure efficient biogas production. "After a worldwide search, Eisenmann's horizontal plug flow system stood out as the only technology that was able to provide the highest possible conversion rates for the broadest range of feedstocks" said Mike Silva, CR&R organics processing project leader. "This flexibility and reliability is essential for the economic success of the project."

To optimize biogas yield, Eisenmann's system is fully automated and continuously monitors and optimizes the digestion environment and feed rate. The CR&R plant features four parallel, primary digesters. Following the pre-processing stage, each individual digester vessel is automatically fed through conveyors and dosing bins. The digesters are equipped with a slow moving horizontal agitator to ensure proper mixing of the feedstock - maximizing exposure to biological colonies and facilitating gas release from the homogenized material. Produced biogas is stored in a flexible, double membrane gas storage roof within the post digester.

The biogas is directed from the post digester to an upgrading unit provided by Greenlane Biogas Ltd. Their upgrading process uses water to make biogas interchangeable with conventional natural gas, allowing CR&R to fuel their fleet of collection vehicles with compressed natural gas (CNG) and to feed excess natural gas into the pipeline distribution system. Overall, the anaerobic digestion plant is projected to generate approx. 1,000,000 Diesel Gallon Equivalent (DGE) of CNG per year.

With the realization of this anaerobic digestion system, CR&R is able to maximize the value of their organic materials. Diverting green waste away from the landfill to their new facility reduces the emission of greenhouse gases. To further lower the carbon footprint and improve the project's economics, the sustainably generated, clean-burning compressed biomethane will be utilized to fuel their fleet of collection vehicles while

(Continued)

remaining digestate, composed of non-digestible fibers and nutrients, will be recycled and used as soil amendment.

### **About CR&R Incorporated**

CR&R Environmental Services is one of Southern California's most innovative and successful recycling and waste collection companies, serving more than 2.5 million people and 25,000 businesses throughout Orange, Los Angeles, San Bernardino, Imperial, and Riverside counties. Thanks to groundbreaking technologies and pioneering reclamation programs, CR&R is able to recycle over 1 million tons of materials each year, creating cleaner communities, reducing air and water pollution, conserving landfill space, and extending our natural resources. To learn about CR&R, please visit our website at [www.crrwasteservices.com](http://www.crrwasteservices.com).

### **About Eisenmann Corporation**

Eisenmann is a leading international supplier for environmental, renewable energy and manufacturing systems. Providing industrial engineered anaerobic digestion solutions for a wide range of feedstocks and biogas projects, Eisenmann delivers proven technologies based on over 37 years of experience in designing, building, commissioning and servicing systems in North America. From advanced receiving and contaminant removal systems to digestate management technologies — Eisenmann is the single source for reliable anaerobic digestion systems and committed to 100% customer satisfaction. [www.eisenmann.us.com](http://www.eisenmann.us.com)

### **Contacts**

Mike Silva  
CR&R Incorporated  
11292 Western Avenue  
Stanton, CA 90680  
Phone: 714-883-3777  
Email: [MichaelS@crrmail.com](mailto:MichaelS@crrmail.com)

Kyle Goehring  
Eisenmann Corporation  
150 E Dartmoor Dr  
Crystal Lake, IL 60014  
Phone: 815-900-1443  
Email: [kyle.goehring@eisenmann.com](mailto:kyle.goehring@eisenmann.com)