



January 19, 2011

**Notice of change in meter**



Landis & Gyr  
Model # E650 S4e  
Type: AXS4e  
Serial No: 79-457-485  
Install date: 1/18/2010

Best regards,

A handwritten signature in black ink that reads "Alan R. Johnson".

Alan R. Johnson  
V.P. BTU, Division of quasar

**quasar energy group**  
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Cleveland, OH 44141

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## **ANAEROBIC DIGESTION FACILITY**

### **BIOMASS ACCEPTANCE PROTOCOL**

1. Only approved materials from approved sources are accepted at this facility.
2. Truck drivers will have to be pre-approved through background check and present picture ID with deliveries.
3. Inflow biomass, including biosolids (sewage sludge), must be below ceiling limits for Cu, Cd, Ni, Zn, Pb, As, Se, Mo, Hg, and PCB (and for out-of -state generators, dioxins/dibenzofurans) as required in 40 CFR 503 and OAC 3745-40. The goal of the Anaerobic Digestion Facility (ADF) is to produce Exceptional Quality (EQ) products, so we will limit intake of biomass with metals in biomass that exceed the EQ limits by more than 25% provided that the total mixture including French Creek solids meets the EQ limits.

Pollutant	Ceiling Concentration in PPM	Exceptional Quality Limits in PPM
Arsenic	75	41
Cadmium	85	39
Copper	4,300	1,500
Lead	840	300
Mercury	57	17
Molybdenum	75	75
Nickel	420	420
Selenium	100	100
Zinc	7,500	2,800
PCB	<5	<5

4. Biosolids generators must provide their historical and quarterly NPDES permit limits and analytical data to QEG for prior approval. The EPA is aware of pollutants in specific wastewater treatment plants that may be of concern in addition to the Federal rules and regulations.
5. This facility will not accept loads with plastic bed liners or chemical treatments to keep loads from freezing or sticking to the truck bed.
6. A Manifest will be required in addition to a weight slip.
7. See below for detailed requirements and restrictions.

## BIOMASS QUALITIES & PRICING BASIS

Price for use of the ADF is based upon several factors which affect management of the facility in terms of total loading rates, volatile solids loadings rates, nutrient management, C:N ratio balance, digested product output, and effluent generation and management. The following are acceptable operational ranges for acceptance of biomass and surcharges for exceeding of the limits:

- (A) Variance from the following limits will result in additional cost for disposal and/or rejection of the biomass from the facility. See **Surcharges** below.
- (B) **% Total Solids** – Biomass received must be pumpable. The normal range for this is liquid (<1% to 12%) to semi-solid sludge (<30% total solids). Once an expected % Total Solids for the incoming biomass is established, then the acceptable range is established at 5% above that % Total Solids. The expected range of % Total Solids is 9 to 19%.
- (C) **% Volatile Solids** – This is the relative strength of the biomass. The ADF can only process a set dry tonnage of VS/day. Once an expected % Volatile Solids for the incoming biomass is established, then the acceptable range is established at 5% above that % Volatile Solids. The expected range of % Volatile Solids is 80 to 90%.
- (D) **Nitrogen Content** of the ADF must be limited to prevent ammonia toxicity. Once an expected Nitrogen Content (Total Kjeldahl Nitrogen on dry weight basis) for the incoming biomass is established, then the acceptable range is established at 5% above that % Nitrogen Content. The expected range is 10 to 20% nitrogen (TKN).
- (E) A balanced **C:N ratio** range of 20:1 to 40:1 is required for the biomass mixture entering the ADF. As such limits will be set on daily volume of high nitrogen biomass relative total intake. The expected C:N ratio is 10:1 to 12:1.
- (F) **pH** – Once an expected pH for the incoming biomass is established, then the acceptable range is established at 2 S.U. above or below that pH. Outside the maximum and minimum pH values are 12.5 and 5.0, respectively, the waste will be rejected.
- (G) **Septic or Soured Wastes** – May not be acceptable to this facility because of potential for digester upsets. Each will be evaluated on a case by case basis.

**Surcharges** – It is understood that contamination (inorganic material and foreign objects) could do damage and /or reduce the efficiency of the anaerobic digestion process. Every reasonable effort to prevent contaminants from being transported to quasar will be made. In the event contaminants are received quasar will contact the Generator to determine an acceptable disposal alternative.

## Quasar Energy Group, LLC Manifest

Waste Approval No. \_\_\_\_\_

Generator:	
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Address:

\_\_\_\_\_

City/State:

\_\_\_\_\_

Generator Contact:

\_\_\_\_\_

Phone No.:

\_\_\_\_\_

Fax No:

\_\_\_\_\_

Generator Certification: I, \_\_\_\_\_, certify that the biomass in this load was generated by this facility and that it does not contain pollutants of regulatory in excess of 40 CFR 503, OAC 3745-40, or the facility NPDES permit.

Hauler Contact:

\_\_\_\_\_

Phone No:

\_\_\_\_\_

Description of Load:

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Truck Drive Name and Truck Number:

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Certification: I, \_\_\_\_\_, certify that the load delivered to the QEG anaerobic digestion facility in North Ridgeville, Ohio, originated at the above generator and that the load has not been altered or added to with any other materials.

Facility Rules:

- 1 Only approved materials from approved sources are accepted at this facility.
- 2 Truck drivers will have to be pre-approved through background check and present picture ID with deliveries.
- 3 Inflow materials must be below ceiling limits for Cu, Cd, Ni, Zn, Pb, As, Se, Mo, Hg, and PCB in 40 CFR 503 and OAC 3745-40.
- 4 Generators must provide their historical and quarterly NPDES permit limits and analytical data to QEG for prior approval. The EPA is aware of pollutants in specific wastewater treatment plants that may be of concern in addition to the Federal rules and regulations.
- 5 This facility will not accept loads with plastic bed liners or chemical treatments to keep loads from freezing or sticking to the truck bed.
- 6 Site hours are 7 AM to 4 PM, Monday through Friday and 7 AM to 12 PM on Saturdays.

## **PROHIBITED DISCHARGES**

No person shall discharge, or cause to be discharged, directly or indirectly, any substance which causes an interference or pass through of the ADF (Anaerobic Digestion Facility), or which disrupts or inhibits the ADF, its treatment processes, operations, or its sludge processes, use, or disposal. No person shall discharge, or cause to be discharged, directly or indirectly, any substance which constitutes a slug. No person shall discharge or cause to be discharged, directly or indirectly, any of the following described substances into the sewer system:

- (A) Any solid or viscous substance capable of causing obstruction to the flow in the sewers, or other interference with the proper operation of the sewer system, for example, but not limited to: construction materials, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, wood, plastic, fur, and/or wax.
- (B) Any flammable or explosive substances, such as gasoline, kerosene, benzene, naphtha, or other substances having a flash point equal to or less than one hundred forty (140) degrees Fahrenheit as determined by closed cup method in accordance with approved analytical procedures.
- (C) Any discharge that will cause the sewage temperature in the inflow to be above one hundred twenty (120) degrees Fahrenheit (49\* C).
- (D) Any discharge having corrosive properties capable of causing damage, corrosive structural damage, or hazard to the ADF, appurtenant devices, treatment process, health and safety of facility employees, or which will impede the use and/or disposal of residual sludges or cause damage to the receiving water or the environment.
- (E) Any discharge having a pH above 12.5 S.U. or a pH below 5.0 S.U. at any time.
- (F) Any discharge containing toxic or poisonous substances in sufficient quantities to constitute a hazard to human beings or animals, or to create any hazard in the receiving waters.

- (G) Any discharge which, by itself or in conjunction with others, results in toxic or noxious gases, vapors or fumes within the ADF or any point of the system in a quantity that may cause acute worker health and safety problems.
- (H) Any discharge which contains an objectionable color not removed by the ADF such as, but not limited to, dye wastes and vegetable tanning solutions.
- (I) Any discharge containing radioactive waste except:
- (1) When the user is authorized to use radioactive materials by the State Department of Health or other governmental agency empowered to regulate the use of radioactive materials; and
  - (2) When the waste is discharged in strict conformity with current regulations of the Applicable Environmental Protection Agency and the Nuclear Regulatory Commission regulations and recommendations for safe disposal; and
  - (3) When the user is in compliance with all rules and regulations of this chapter and all other applicable regulatory agencies; and
  - (4) When there is no harmful effect on city personnel, sewer system, sludges, or receiving stream.
- (J) Any used oil or petroleum based materials.
- (K) Any discharge that results in an exceedance of ten (10) percent of the lower explosive limit in the air at any point within the ADF.
- (L) Any discharge of silver-rich solutions from a photographic processing facility, unless such silver-rich solution is managed by a photographic processing facility in accordance with the Silver CMP prior to its discharge.



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**1/19/2011 9:55:42 AM**

**in**

**Case No(s). 09-0526-EL-REN**

Summary: Notice Providing a photograph and model number information of replacement meter electronically filed by Mrs. Deborah H Elias on behalf of Schmack Biomass - OARDC, LLC