

## Process Description

Manure and soiled bedding are conveyed by alley scrapers to centrally located manure drops with a gravity flow system below, leading to the digester influent pit. Contents of the influent pit are transferred to the digester every 20 minutes for a five minute period with a J. Houle&Fils vertical piston pump.



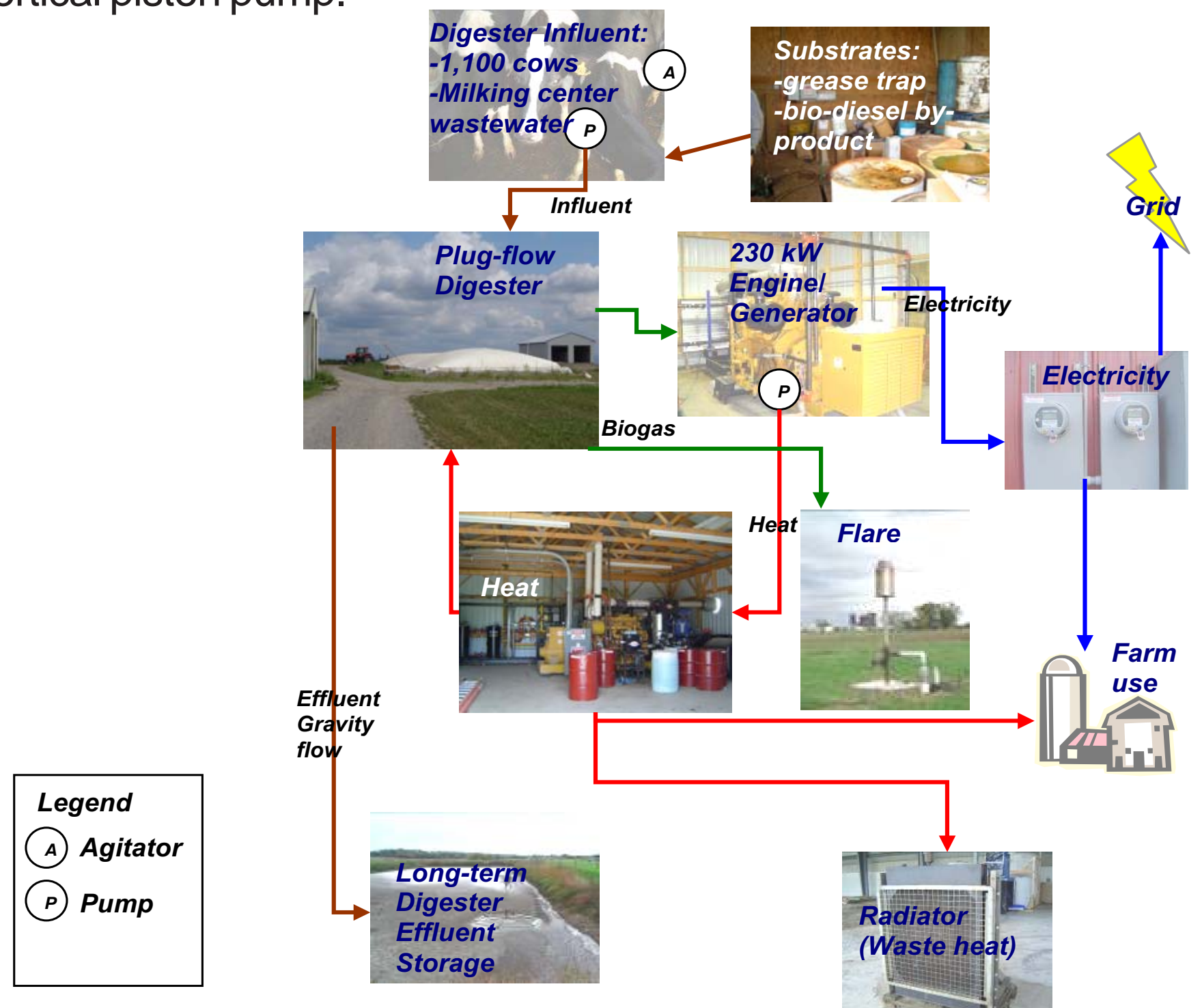
Influent Houle piston pump



Effluent pit with undigestable bedding solids build-up



Measuring stroke length during Pump Calibration test



## Pump Calibration Test

A pump test was recently performed to determine the efficiency of the digester influent pump. Influent was diverted from the digester to fill an 8,000 gallon manure spreader truck, and each load was weighed. Pump strokes were counted during each of the three trials. Density of the manure was also determined.

The volumetric pump efficiency for this pump was determined to be 91%

A pump stroke counter has been affixed to the calibrated pump to determine an accurate mass flow to the digester. Accurate mass flow data is needed to evaluate the overall performance of the digester system.

## For more information

Download and print the Emerling Case Study at:

<http://www.manuremanagement.cornell.edu/HTMLs/CaseStudies.htm>

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