



October 25th, 2011

GE Energy – Jenbacher Gas Engines confirms that the pollutants, in the amounts listed below, are confirmed as valid "NOT TO EXCEED" values, for stationary applications per engine, and based on site gas conditions to meet TI 1000-0300 and TI 1400-0091 for the:

Greenfield Energy: 4 x JGS320 C82 480V

Pollutant Emission Limit per Engine

- NO_x **0.6 g/bhp-hr**
Evaluated using EPA method 7E
- CO **3.0 g/bhp-hr**
Evaluated using EPA method 10

The following criteria apply for demonstration purposes:

- (1) Operation will be on **Landfill Gas** which must meet the GEJ gas quality requirements stated in the Technical Instruction 1000-0300 and TI 1400-0091.
- (2) A minimum content of 50% CH₄ (air free) is required to ensure a stable combustion in our engines when run in Biogas gas.
- (3) Based on nominal mass flow as provided by the project specific data sheets or mass flow calculations according EPA method 19.
- (4) For operation between **80%** and **100%** rated stable load (not for island mode).
- (5) Please note that the CO and NMHC levels are for start up only and are expected to drift slowly upwards as deposits build up in the engine and as the engine experiences normal wear. CO drift can be decreased by following GEJ specific maintenance and repair schedules along with the use of genuine GEJ parts and components.
- (6) Please note that the NO_x level is expected to drift slowly upwards as deposits caused by contaminations in the gas build up in the engine and as the engine experiences normal wear. NO_x drift can be compensated up to a certain extent, by calibrations to engine operating parameters in the Diane XT controls system. Excessive deposits resulting from gas contamination may require the cleaning of the combustion chamber and turbochargers depending on gas quality and the severity of gas contaminations.
- (7) Maintenance and component repairs for the GE Jenbacher equipment is carried out by qualified personnel strictly according to the schedules and repair requirements set by GEJ along with the use of genuine GEJ parts and components.
- (8) Testing to determine compliance with this commitment will be at the expense of the customer and accomplished by a certified laboratory chosen by the customer. The engine/installation is to be in good



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Jenbacher Gas Engines**

working order consistent with GEJ recommended maintenance practices prior to any testing. GEJ reserves the right to participate and/or challenge the results of any testing.

If the engine fails to meet the emissions representations the customer must provide the following supporting documentation to GEJ:

- (1) Fuel gas samples
- (2) Complete maintenance records
- (3) A full report including the calculations and results of any emissions testing.

GEJ will be given a reasonable amount of time to take any or all of the following actions:

- Perform additional testing in an effort demonstrate the emissions representations. If this testing demonstrates compliance with no adjustments required to the engine, customer will pay for added testing. If testing fails to demonstrate compliance with the emissions representations, the testing will be paid for by GEJ.
- Make such adjustments to the engine so as to bring the engine into compliance with the emissions limits provided in this letter.

Sincerely,

Lesley Exum-Goudeax

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