October 24, 2007

CDM Executive Board
Bonn, Germany

Subject: Request for review: "AWMS Methane Recovery Project BR06-S-23, Mato Grosso and Goias, Brazil; Project activity 1234"

Dear EB Members:

In response to the subject "request for review" of project 1234, the Project Participants provide the following clarifications:

1. **The PP shall further demonstrate the additionality of the project activity.**

Numerous examples are provided in Section B.5. of the PDD to demonstrate the additionality of the project activity.

As noted on page 13 of the PDD, the project activity captures and flares methane. Currently there is no government requirement, nor is a requirement planned, to destroy GHG from AWMS operations. This project is voluntary.

While not specifically required by the methodology or the current additionality tool, we provided an assessment of all barriers to include:

Investment: Traditionally, farmers do not invest money in AWMS. If investment money becomes available, they build new facilities and increase pork production. The project AWMS does NOT produce revenue and is not an investment.

Technology: The roadside is littered with anaerobic digesters which have failed due to poor design, bad construction, deficient materials, lack of maintenance, etc. Farmers have seen this and are very cautious to participate in an advanced technology which has previously demonstrated little success. AgCert has contracted the finest talent and used the best materials to build anaerobic digesters. Further, we maintain the digester throughout the life of the project. This is definitively additional to the "Business As Usual" scenario.

Prevailing Practice: As demonstrated on page 4 of the PDD, the open lagoon (the primary cause of GHG emissions) is not only the common practice, it is highly recommended by government officials. It is inexpensive and requires little or no maintenance. The farmers much prefer an open lagoon to an enclosed anaerobic system which requires high grade materials, complicated wastewater routing, a gas collection system, a metering and flaring process, etc.

2. **The PP shall further clarify in what way their references in the PDD to technical studies related to seepage in Manitoba and Kansas are pertinent for a project in Mato Grosso and Goias.**

The references to technical studies related to seepage in Manitoba and Kansas were included in the PDD to provide evidence from published scientific reports on animal waste that re-lined lagoons improve lagoon performance. The PP includes this reference to clearly illustrate the additional environmental benefits swine producers receive from re-lined lagoons.

3. **The PP shall further clarify what is their understanding of the reference to regulatory impetus in this sector.**

The Project Participant's understanding of regulatory impetus is that the local, state and/or federal regulations do not require swine producers to upgrade their current Animal Waste Management system beyond the common practice of an open air lagoon.

4. **The PP shall further clarify their statement that "This treatment approach is considered one of the most advanced AWMS systems in the world".**

In addition to capturing and eliminating harmful greenhouse gases and contributing to climate change programs, anaerobic biodigesters provide a series of additional benefits to the local community and swine farmer. This serves as evidence that this treatment approach is considered one of the most advanced AMWS systems in the world. Biodigesters improve the standard of living for the local community by reducing odors and fly proliferation and improving the air and local water supply. With the installation of the biodigester, swine producers receive a modern and clean AWMS. The technology helps farmers reduce consumption of non-renewable electricity or fuel. It also reduces dependence on synthetically-produced fertilizer since the manure leaving biodigesters is a more effective fertilizer. With over 700 biodigesters constructed and currently monitored in Latin America, the project participant is a world leader in the development of this advanced AWMS technology.

5. **The PP shall further explain their understanding of the current technological barriers as the argument provided is essentially economic in nature.**

Technology barriers are apparent when there is a lack of skilled and trained laborers to operate and maintain the system for long-term operations. These are state-of-the-art waste management systems which require a higher degree of training and understanding to operate proficiently. Many promising agricultural innovations and supporting policies have previously failed because they were inappropriate to farmers' needs. An anaerobic digester is not needed for meat production and therefore not widely accepted nor used by the farmer, especially considering the high costs of implementation and continuous operation and maintenance.

6. **The PP shall further clarify which is the fraction of producers that do not possess the capacity of investment for a new AWMS, as stated by Professor Dr. Carlos Claúdio Perdomo, a swine and poultry researcher from EMBRAPA.**

None of the producers in this small scale CDM project possess the capacity of investment for a new AWMS. The fact that these seven farms have been bundled together to generate an estimated 15,896 CERs/year is evidence that these very small, rural, family-run farms do not have the financial resources to invest money in a new AWMS. In recent years, the Brazilian swine industry has suffered as world pork prices have dropped. The decreasing revenue rural farmers earn is used to buy new stock, maintain facilities and purchase feed. Farmers do not invest money into AWMS as it is not a source of revenue.

7. **The PP shall further clarify the purported legal barriers.**

Based on Attachment A to Appendix B of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories (http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentA.pdf) legal barriers are no longer required to prove additionality, therefore, the PP has removed this subject from the PDD.

8. **Clarification is required as to how the use of animal weights to determine values for volatile solids (VS) were considered appropriate, in accordance with the methodology, and validated by the DOE.**

The Vs is calculated based on the default value presented in the IPCC 2006, table 10A-7 page 10.80 and table 10A-8 page 10.81. The same have been weight adjusted. The methodology requires the use of the IPCC 2006 tier 2 approach. The IPCC clearly mentions in page 10.42 the option to use default data: "Even when the level of detail presented in the Tier 2 method is not possible in some countries, country-specific data elements such as animal mass, VS excretion, and others can be used to improve emission estimates. If country specific data are available for only a portion of these variables, countries are encouraged to calculate country-specific emission factors, using the data in Tables 10A-4 through 10A-9 to fill gaps." (The data from these tables are used by the PP). In addition, no country-specific data for Brazil is available to employ the use of the formula proposed in the IPCC. Some parameters such as GE have to be used and not all the parameters are available, therefore the direct use of the formula is not possible. The PP has decided to use the approach presented above based on conservativeness approach and the unavailability of data. The conservativeness approach is demonstrated in the attached excel file, where in order to have a reference value data from "Nutrient Requirements of Swine (1998)" (http://books.nap.edu/openbook.php?record_id=6016&page=111) has been used. In the calculations presented is clear that by using default values from IPCC 2006 and a weight adjustment, the result is more conservative than trying to use the equation 10.24. In conclusion, the approach used by the PP follows the IPCC 2006 recommendation to use default data and is conservative by using a weight adjustment.

9. **Clarification is required as to whether the emission factor used for electricity consumption is calculated ex-ante and how the DOE validated its appropriateness.**

The emission factor used was taken from registered CDM project 0190 which was registered on 9 March 2006, This project uses an EF which was calculated ex-ante using data through 2004.

10. **The monitoring plan should include the more frequent monitoring of the methane content if significant deviations from the previous observations are observed.**

Updates to the PDD and monitoring plan have been made to require more frequent monitoring if significant deviations from previous observations are recorded.

11. **The DOE shall further clarify how they have assessed and validated the responses to the following clarification requests:**

    a. **Clarification Request 5: the language of the CR is suggestive of possible resolution. Requests clarification regarding guarantees that debundling will not be taking place over time. The**

Project participants' response is "Site expansion can still be considered as part of the existing project activity". This response leads to uncertainty regarding the possible debundling.

The expansion of a project site will never be considered a debundled component of a large scale project activity because the site will already have been registered as a small-scale project that considers debundling during the validation process.

b. Clarification Request 8: While the PDD Version 3 shows all project emissions, the monitoring plan does not consider measurement of emissions from power consumed in the operation of the plant.

The formula in section E.1.2.5 of the PDD clearly shows that project activity emission reductions consider power consumed as direct emissions (DE) from use of fossil fuels or electricity for operation of project equipment during the crediting period. The value DE will be *calculated* in accordance with the PDD ex-post based on the equipment in use during the monitoring period.

c. Clarification Request 14: Too many different issues are clubbed under one CR. Answer of the project participant to the CR is not adequate, transparent and satisfactory. It does not address specific request of the DOE i.e. existence of a procedure for monitoring the use of North American and European genetics. Just saying that without the use of these genetics the business would not profitable would not be sufficient.

The PP collects a record of genetics information from each producer at least annually as part of a regular O&M records review.

Should you require any additional information regarding this request please feel free to contact me at any time.

Sincerely,

Leo S. Perkowski
Vice President, Regulatory Affairs