Attached response to the CDM Executive Board

Regarding the second issue of the request for review:

Issue 2:

The DOE deferred the FAR 5 from the previous verification regarding the failure of biogas monitoring equipment as a FAR 2 to be resolved in next verification. However, there is no explanation why this FAR 5 was not resolved during this monitoring period.

The project participant indicates that the electric panel of each digester has no voltage regulator installed, due to the existing protections are enough to allow the equipments operation between a voltage range validated according the Chilean Norm Nch 4/2003. If any non-regular voltage fluctuation occurs, the protections do not allow the equipment operation until the fluctuation is regularized.

We believe that voltage regulators are less effective since they will not assure the power supplied to the digester, they will only moderate the voltage in case of variations. In addition, since nobody provide nor install this equipment in such a power in Chile (450 – 500 kVA) it has very difficult for us to find a supplier who's able to quote them to us. We understand that the aim of this measure is to guarantee an operational continuity at the digester, but we believe it can be reached by other means, not less expensive, but more effective, like power generations units.

In case of energy supply blackout for more than a week, which is improbably to occur, the anaerobic condition could be affected, so the CO2 and pH would vary without any control, so the calculated of CER's will be affected as well.

Another possibility could be the installation of more dedicated voltage regulators (smaller too), to moderate the variations of the supplied voltage PLC (PLC for CDM purpose, only show the biogas flow, and show the anaerobic condition, the same as CO2% and pH parameter).

We have monitored in one site of la Estrella, last February, the behavior of the power supply quality. Attached is a document which includes a chart that shows clearly that slight voltage variation would not affect any supply equipment, as evidence.

The following table shows the reliability of measurements and the measures to be taken in case of possible failures.

Table 1: Reliability of measurements and measures to be taken in case of failures

PARAMETER	DATA FROM	ASSOCIATED EQUIPMENT	RELIABILITY	HOW TO DEAL WITH POSSIBLE ELECTRICAL FAILURES
Swine stock	Barn registries	Paper and computational system	Security of the computational support	**Power generator at the Agrosuper Office**
Average swine weight	Wean weight and slaughter weight	Scales	Precision Hispana calibration	**Weight in a Feed Meal Facility or public and certificated and or calibrate scale**
Manure flow to the treatment system	Flow meter	MAGFLO 5000		**If the equipment does not count, does not records, so can not compute CER's**

PARAMETER	DATA FROM	ASSOCIATED EQUIPMENT	RELIABILITY	HOW TO DEAL WITH POSSIBLE ELECTRICAL FAILURES
BOD_5 content in the effluent of the activated sludge	Laboratory measurement	Laboratory equipment	Attached is the INN (National Institute of Normalization) certification	**External Laboratory procedures**
Nitrogen content in the effluente of the activated sludge (TKN)	Laboratory measurement	Laboratory equipment		
Temperature of the manure in the effluent of the activated sludge	Laboratory measurement	Laboratory equipment		
Biogas flow extracted from the digester	Biogas flow meter	PLC	On site visit of Poch personnel to verify and check the control system	**If any electrical failure occurs, the equipment does not monitor the biogas flow, nonetheless, this parameter only guarantees the correct performance of digester, so if there are not registries, the performance of the digester can be checked by the means of the CO_2 concentration in the biogas flow and pH of the manure**
CO_2 concentration in the biogas flow	CO2 Measurement	Bacharach	Attached is the measurement procedure	**Not applicable**
Sludge generation	Activated sludge plant	Volumetric container capacity	Delivery sheet	**Not applicable**
Dry solids generation	Activated sludge plant	Volumetric container capacity	Delivery sheet	**Not applicable**

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