

**CARBON EGYPT Ltd.**  
2 Simon Bolivar Square  
Garden City; Cairo, Egypt  
Tel. +20 (02) 79 20 100  
Fax. +20 (02) 79 20 200



UNFCCC Executive Board  
Att: CDM Executive Board

Martin-Luther-King-Strasse 8  
D-53153 Bonn  
Germany

13. August 2007

**Response to request for review: CDM Ref 0490**

**“Catalytic N<sub>2</sub>O Destruction Project in the Tail Gas of the Nitric Acid Plant of Abu Qir Fertilizer Co.”**

Dear Members of the CDM Executive Board,

Please find below our response to the request for review for the above mentioned project no. 0490, Catalytic N<sub>2</sub>O Destruction Project in the Tail Gas of the Nitric Acid Plant of Abu Qir Fertilizer Co.

**Request 1:**

*“The monitoring report states that the hydrocarbon oxidation factor has been continuously measured while the verification report mentions it has been calculated. According to the approved methodology and the registered monitoring plan, this parameter is required to be measured. Further clarification is required regarding the monitoring of this parameter.”*

**Carbon response:**

1. **AM0028:** According to the approved methodology AM0028-Vers.1 the hydrocarbon oxidation factor has to be measured continuously and reported on a daily basis. The oxidation factor is the fraction of converted hydrocarbons. Therefore the amount of hydrocarbon input and the amount of non converted HC are required. In order to determine the HC oxidation factor AM0028 gives 2 possibilities for determination of the “Fraction of Methane not converted”; (1) Fraction of Methane not converted will be measured and (2) Fraction of Methane not converted will not be measured.
2. **PDD:** The registered PDD states the HC oxidation factor is continuously measured and daily reported. The Monitoring Plan details the measurement on HC. The HC input is measured by flow meters manufactured by Krohne. This flow is converted to standard conditions based on continuous temperature and pressure measurements; devices are manufactured by Rosemount (see PDD, page

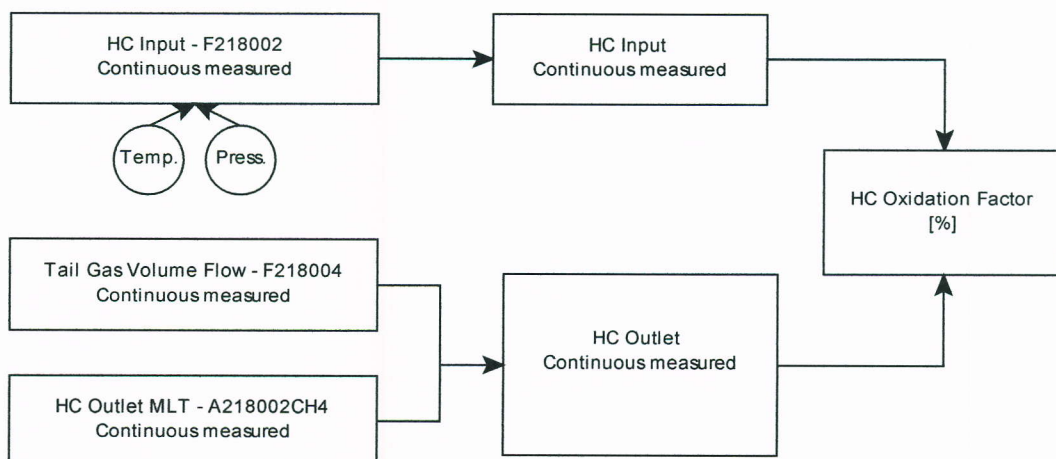


74). The methane concentration at the outlet is measured by non-dispersive-infrared photometry (see PDD, page 73). Therefore the fraction of Methane not converted is measured (Case 1 according to AM0028). The tail gas volume flow is continuously measured by a venture tube, according to ISO 5167-Part 4:2003 and automatically adjusted to standard conditions (see PDD, page 72/73).

3. **Monitoring Report:** As described in the Monitoring Reports and confirmed by the Verification Reports all installation and measurements are absolutely consistent with the equipment described in the registered Monitoring Plan. All measurements required for measurement of the HC oxidation factor are done continuously and reported in the DCS - Delta V System. In order to apply a conservative approach (underestimation of emission reductions) the conservative hydrocarbon CO<sub>2</sub> emission factor applied to the project activity is 3.0 tCO<sub>2</sub>/tHC.

Obviously there exists no direct measurement method for an oxidation factor [%] and the wording in the methodology, which was submitted by Carbon, can result in a wrong interpretation. However, it can easily be seen that our project activity is following exactly all requirements defined in the approved methodology and registered Monitoring Plan. Therefore the measurement of the oxidation factor is solely based on continuous measurements of all relevant parameters:

- Hydrocarbon Input: KROHNE – F218002: continuously measured
- Volume Flow: Venturi Tube – F218004: continuously measured
- Hydrocarbon Outlet: MLT – A218002CH4: Non-dispersive-infrared photometry: continuously measured



Hydrocarbon Input and Tail Gas Volume Flow are automatically reported at standard temperature and pressure. HC outlet is also continuously measured. Please note the measuring method and algorithm used for



measurement of the HC oxidation factor is the single existing method for measurement of the HC oxidation factor.

Based on the above given explanations it can easily be seen that the oxidation factor is continuously measured and daily reported. The applied measurement procedure is therefore fully in compliance with AM0028 and the registered PDD.

**Request 2:**

1. *"The monitoring report states that the hydrocarbon oxidation factor has been continuously measured while the verification report mentions it has been calculated. According to the approved methodology and the registered monitoring plan, this parameter is required to be measured. Further clarification is required regarding the monitoring of this parameter."*

**Carbon response:**

Same as request 1, see above.

2. *"The PDD on page 46 mentions "Since also the gauze pressure is an important parameter ----- AFC will either change the pressure measuring device or calibrate it prior to the starting date of the project activity ---- to obtain more accurate pressure measurement." The verification report of the first periodic verification does not indicate whether this was done. The monitoring as well as verification reports of the current crediting period also do not clarify whether this was done. The project participant should clarify whether the pressure measuring devices were changed or calibrated in the report and DOE should verify/certify it."*

**Carbon response:**

As described in the approved PDD the operating pressure is measured by pressure transmitter (TAG: P-21353) in the air compressor discharge line. The relevant measuring device, manufactured by Eckardt, was calibrated (1) prior to the start up of the project activity in September 2006 and (2) during the regular shut down in May 2007. Relevant documentation was presented to the DOE.

The verification report of the **first** periodic verification (see page 8/9) clearly indicates that the measuring device P-21353 was calibrated prior to the start of the project activity (22<sup>nd</sup> September 2006). Furthermore the verification report of the **second** periodic verification (see page 9) clearly indicates that the measuring device P-21353 was again calibrated during the regular shut-down on 3<sup>rd</sup> May 2007.

Therefore both verification reports obviously clarify that the relevant pressure measuring device were calibrated.



**Request 3:**

*"The monitoring report states that the hydrocarbon oxidation factor has been continuously measured while the verification report mentions it has been calculated. According to the approved methodology and the registered monitoring plan, this parameter is required to be measured. Further clarification is required regarding the monitoring of this parameter."*

**Carbon response:**

Same as request 1, see above.

In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Kind regards,

A handwritten signature in blue ink, appearing to read "F. Heilig", is written over a horizontal dotted line. The signature is fluid and cursive.

Mag. Ferdinand Heilig