


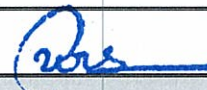


Annex 27

**FORM FOR SUBMISSION OF REQUESTS FOR DEVIATION PRIOR TO SUBMITTING REQUEST
FOR ISSUANCE**

(Version 01)

F-CDM-DEV-ISS

 CDM: Form for submission of requests for deviation prior to submitting request for issuance (Version 01) <i>(To be used by the DOE for requesting a deviation prior to submitting request for issuance)</i>	
Name of the entity (DOE) submitting this form	TÜV Rheinland (China) Ltd.
Project Ref./Title of the project activity	0247 : Replacement of Fossil Fuel by Palm Kernel Shell Biomass in the production of Portland Cement
Title/Subject (give a short title or specify the subject of your submission, maximum 200 characters):	Deviation from Monitoring Plan due to non measurement of heat value of Alternative fuel & Fossil fuel.
Specify the monitoring period for which the request is valid:	01/01/2010 to 30/04/2010
Date and signature for the DOE	28/03/2012 
Description of the request for deviation Please use the space below to describe the deviation and substantiate the reason for requesting a deviation from provisions of registered monitoring plan.	



The request for deviation is being applied for the registered CDM project activity titled “**Replacement of Fossil Fuel by Palm Kernel Shell Biomass in the production of Portland Cement**” with project reference number: 0247. The project was registered on 7 April 2006. Methodology applied for this registered CDM project activity is ACM0003 Version 1. During the 3rd periodic CDM verification (i.e. covered by the verification team from 01 January 2010 to 30 April 2010), TÜV Rheinland (China) Ltd. found the following deviation from the registered monitoring plan:

Deviation 1: Non measurement of heat value of alternative fuel and fossil fuel i.e.:

- i) Heat value of alternative fuels (HV_{AF}) used in Kanthan Works
- ii) Heat value of fossil fuels (HV_{FF}) used in Kanthan works.

As per the monitoring plan mentioned in the registered PDD, both the parameters, HV_{AF} & HV_{FF} , would be measured on monthly basis using a Bomb calorimeter in LMCB laboratory. However these parameters had not been measured for the 3rd monitoring period. This is due to the LMCB laboratory’s Bomb calorimeter was on breakdown from 05/01/2010 to 01/06/2010. The verification team had found out this during on site visit conducted at Kanthan Works on 23 June 2011. The verification team also cross checked with other plant records i.e. AF Moisture Test Microsoft Excel Sheet during on site visit & found the actual starting date of the equipment breakdown is from 05/01/2010 till 01/06/2010

The verification team cross checked the “Checklist For Calibration of Heat Capacity” which contained historical records of calibration for the bomb calorimeter. The record showed that the bomb calorimeter was on breakdown from 05/01/2010 to 01/06/2010. The bomb calorimeter was subsequently re-calibrated on 04/06/2010.

The verification team also checked further the supporting evidences for equipment repair & servicing i.e.:

- a) Equipment service annual contract purchase order dated 23/02/2010
- b) Equipment repair purchase order dated 26/04/2010.

The verification team noted that the gap detected for mainly due to the time taken by the project participant to finalize their annual service contract with the bomb calorimeter’s original equipment supplier, who also happened to be the only supplier who could perform the equipment service & repair.

The verification team sighted also the email correspondences dated since early January 2010, where invitation was sent to the bomb calorimeter supplier to invite for quotation submission for annual preventive maintenance services. Subsequently, the supplier was awarded with the contract & evidenced via purchase order dated 23/02/2010

The 1st service for year 2010 was carried out on 15/04/2010 as evident via review of the service report. The service report indicated the details of the problems causing the breakdown of the calorimeter & subsequently on 26/04/2010, purchase order was raised to repair the bomb calorimeter

The parameters had been measured on monthly basis for the first (from 01/05/2000 to 31/12/2005) and second verification (from 01/01/2006 to 31/12/2009) period as per the registered monitoring plan.

For the 3rd verification period,

- i) HV_{AF} are determined as the minimum of monthly measured heat value observed from 01/05/2000 to 31/12/2009 (i.e. reported during 1st & 2nd verification period, combined)
- ii) HV_{FF} are determined as the minimum of monthly measured heat value observed from 01/05/2000 to 31/12/2009 (i.e. reported during 1st & 2nd verification period, combined)

The approach taken is considered to be accurate, representative & conservative since the measured data taken are from the actual measured values during the 1st & 2nd verification period combined



Remarks: The requested deviation above applies to all types of fossil fuel & alternative fuel except for metcoke. For the 3rd verification period, HVFF for metcoke are determined as the **actual measured value only in April 2010**. The verification team would like to provide detailed explanation as follows:

- a) The metcoke has been used by the Kantan Works (KW) plant for the 1st time on April 2010 (130 tons). This has been confirmed by reviewing the plant records i.e. CV results obtained & **Monthly Production Consumption Report** during the current & past monitoring period. The **Monthly Production Consumption Report** for month April 2010 showed clearly that the metcoke has been used (130 tons) & no consumption of the metcoke commenced prior to April 2010.
- b) The verification team cross checked the supporting raw data records ** received from the plant & also the published monitoring reports (1st verification period from 01/05/2000 to 31/12/2005; 2nd verification period from 01/01/2006 to 31/12/2009).

**** Remarks**

*The amount of AF to be fed was determined by the Production Engineer / Pyro Manager and it was based on the energy requirement for the day and the heat value of the AFs. The amount of AFs used for the day was reported in the **shift report (spreadsheet format - totaliser report)** which was then transferred to the **Daily Production Report**. The daily production report was submitted to the Production Manager and Finance Manager on a daily basis for review and final validation. The **Daily Production Report** indicated the quantity of each type of AF used in the kiln for the day. This was cross checked during on site visit by the verification team*

*The **Daily Production Report** which is then compiled into **Monthly Production Consumption Report**, where the total quantity of AF used are recorded. These data are compiled by the financial department, which in turn being audited as well by external party for the figures - hence, it is a reliable & credible source of information. This was cross checked as well with the Financial Department representatives during on site verification*

- c) The verification team confirmed that there are no metcokes were utilized prior to April 2010 till the previous monitoring period (1st verification period from 01/05/2000 to 31/12/2005; 2nd verification period from 01/01/2006 to 31/12/2009) based on the review of Totaliser Report → Daily Production Report → **Monthly Production Consumption Report** (compiled by financial department & audited by external party).
- d) Note that the information of the **quantity of AF purchased & consumed are recorded clearly in the Monthly Production Consumption Report**
- e) The verification team also found out that the HVFF-metcokes values were obtained via measurement of the actual samples at RW plant laboratory (Rawang Works), evident via laboratory report. Noted that the samples were measured at RW plant laboratory during the bomb calorimeter breakdown period for KW plant laboratory
- f) The verification team also verified with the project participants, the reasons for not sending all other alternative fuels & fossil fuels samples to RW plant laboratory during the bomb calorimeter breakdown period, as explained below:
- g) As the RW plant laboratory is located approximately more than 150km (2 hours drive on the road) from KW plant (verified by the verification team during the actual traveling on the road by car & also via Google Map), hence it is not feasible & practical (due to traveling cost & transportation) to send monthly samples to RW plant laboratory for the routine measurement
- h) Only metcoke samples are sent to RW plant laboratory due to the fact that it was the 1st time it was introduced at KW, and there are no other historical data available that can be used as the substitute data during the bomb calorimeter breakdown period

**Requested deviation period:**

The verification team would like to point out that for the 3rd monitoring period as published in the latest monitoring report (currently undergoing for verification) is starting from 01/01/2010 till 30/04/2010 which is also the valid monitoring period specified in the F-CDM-DEV-ISS Form For Submission of Requests For Deviation Prior To Submitting Request For Issuance, applicable for request for deviation

The verification team also would like to point out that this is the last monitoring period applicable for this project activity as the crediting period as shown in the UNFCCC website indicated as 01 May 2000 till 30 April 2010 (<http://cdm.unfccc.int/Projects/DB/DNV-CUK1137498953.91/view>)

Conclusion: The verification team had applied & specified correctly the request for deviation period which also already covers the entire 3rd monitoring period starting from 01/01/2010 till 30/04/2010

Please use the space below to describe and substantiate the assessment of the DOE that the deviation does not require a revision of monitoring plan or the changes from the project activity as described in the registered project design document.

The proposed deviation does not require a revision of monitoring plan or the changes from the project activity as described in the registered project design document since the deviation is only applicable for the specific period during the 3rd verification. Both Heat value of alternative fuels (HV_{AF}) & Heat value of fossil fuels (HV_{FF}) used in Kanthan works had been monitored & measured continuously throughout the last 2 monitoring period & this is in line with the monitoring plan described in the registered PDD



Please use the space below to describe the impact of the deviation on the estimates of the emissions reductions for the proposed project activity with the use of approved methodology as existing and with the deviation.

Please substantiate the estimations with relevant and verifiable data.

The impact of this deviation request for parameters as explained above is as follows:

- i) H_{VAF} values are not monitored for a certain period of time. The proposed deviation results in reduction in Baseline emissions as for the month from 01/01/2010 to 30/04/2010, the minimum of monthly measured heat values from 01/05/2000 to 31/12/2009 (i.e. reported during 1st & 2nd verification period, combined) is used to calculate Baseline emissions. The monthly heat values are obtained from the average of heat values monitored during a month. This deviation is more conservative than the monitoring plan mentioned in the registered PDD as this result in lowering the CV value of alternative fuel.
- ii) H_{VFF} values are not monitored for a certain period of time. The proposed deviation results in reduction in baseline emissions as for the month from 01/01/2010 to 30/04/2010, the minimum of monthly measured heat values from 01/05/2000 to 31/12/2009 (i.e. reported during 1st & 2nd verification period, combined) is used to calculate project emissions. The monthly heat values are obtained from the average of heat values monitored during a month. This deviation is more conservative than the monitoring plan mentioned in the registered PDD as this result in lower CV value of fossil fuel and emission reduction

Hence the deviation request has resulted in lowering the emission reductions for the monitoring period and hence it is deemed to be conservative.

The verification team considered this as conservative due to the additional reasons below:

- iii) During the verification process, the verification team had found out that initially, the H_{VAF} & H_{VFF} values indicated in the ER spreadsheet (values reflected in the published monitoring report at the start of verification process) were taken from average values of Dec 2009 month records (data taken from fuel CV calculation spreadsheet) as a substitute data to be used during the monitoring period (where the bomb calorimeter breakdown). This was explained during on site interview with the Process Manager.
- iv) Since the approach adopted was found to be inadequate, a CAR was raised to address the suitability of data to be used & also to ensure request for deviation is also being requested.
- v) In the published monitoring report, the emission reductions amount calculated for Kanthan Works = 29,409 tCO₂e
- vi) Upon substituting the representative data taken from 01/05/2000 to 31/12/2009 (i.e. reported during 1st & 2nd verification period, combined) for both H_{VAF} & H_{VFF} (minimum of monthly measured values), the new emission reductions amount calculated for Kanthan Works = 22,094 tCO₂e. This confirmed that the use of minimum values for both H_{VAF} & H_{VFF} has resulted in lowering the emission reductions for the monitoring period & therefore, this is conservative
- vii) For the other monitoring parameters indicated in the monitoring plan, the verification team found these are consistently monitored including the use of biomass as the fuel



Link to the documentation made available at validation stage or the monitoring report	<ul style="list-style-type: none">http://cdm.unfccc.int/Projects/DB/DNV-CUK1137498953.91/view
If necessary, list attached files containing relevant information which is not available through the above link	<ul style="list-style-type: none">MS Excel Spreadsheet “Monitoring Data KW_060212”

History of document

Version	Date	Nature of revision
01	EB 49, Annex 27 11 September 2009	Initial adoption: This form replaces the form included as part of the <u>Procedure for request for deviation to the Executive Board</u> (version 02, EB24, Annex 30). This form should be used in conjunction with <u>Procedure for request for deviation prior to submitting request for issuance</u> .
Decision Class: Regulatory Document Type: Form Business Function: Issuance		