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Att: CDM Executive Board

Your ref.:
CDM Ref 1603

Our ref.:
MLEH

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Response to requests for review

“Zhengzhou Coal Industry (Group) Co., Ltd. Coalmine Methane Utilization Project” (1603)

Dear Members of the CDM Executive Board,

We refer to the issue raised by the requests for review by three Board members regarding project activity 1603 “Zhengzhou Coal Industry (Group) Co., Ltd. Coalmine Methane Utilization Project” and would like to herewith provide our initial response to the issue raised.

Comment 1:

1. The DOE should render a validation opinion on whether the input values are appropriate in the context of the project activity.

DNV Response:

In assessing the input values used in the investment, DNV has followed a 4-step approach:

Step 1: Assessment of the sources of the input parameters used in the investment analysis:

a) All the input parameters used in the financial analysis except for those mentioned in the following paragraph b) are taken from the feasibility study report (FSR) developed by the Zhengzhou Design and Research Institute of the Ministry of Coal Industry, which was approved by the Henan Provincial Development and Reform Commission on 29 August 2007. The input parameters used in the financial analysis can thus be considered information provided by an independent and recognized source.

For this project, before the above-mentioned FSR (the second FSR), a FSR was prepared in the May 2006 (the first FSR). The second FSR was prepared to take into account installation of further equipment as decided by the project participant.

The second FSR reflected the actual investment analysis for the facility and the project equipment as described in the PDD. So, the current investment analysis was based on the second FSR.

As explained by the project participant, the IRR calculated according to the second FSR was more conservative and a revised PDD was submitted with the project participant’s response which includes an IRR analysis based on information from the first FSR.

b) The remaining input parameters include:

- Input values to calculate electricity and heat generation from Shengdong engines (i.e. engines' operation time, engines' power performance and engines' heat generation). These data values came from the equipment supplier instead of the FSR. DNV was able to confirm that these data values reflect more accurately the equipment operation as they are the actual operating results provided by the supplier.
- Input values to calculate Vocsidizer's heat generation (i.e. Vocsidizers' operation time and heat generation), investment and operational costs. These data values came from the equipment supplier, and DNV was able to confirm that they reflect more accurately the equipment operation as they are based on the data provided by the supplier.

c) All the above input parameters were available at the time when the decision to proceed with the project was made.

Step 2: Confirmation that the values used in the PDD and investment analysis are fully consistent with the FSR and the data provided by the equipment suppliers:

DNV compared the input parameters for the financial analysis included in the PDD and investment analysis with the parameters stated in the FSR (the second FSR) approved on 29 August 2007, the actual operating results, and the data provided by the supplier and was able to confirm that the values applied are consistent with the value stated in the FSR, the actual operating results, and the data provided by the supplier.

Step 3: Assessment of the period of time between the finalization of the FSR and the investment decision:

There is a time lag between the first FSR for this project completed in May 2006 and the project's starting date, which was determined as 1 June 2007. But, as mentioned above, a second FSR (approved on 29 August 2007) was prepared for this project. By checking the values used in these two FSR's, DNV was able to confirm that the assumptions and data values used in the first FSR remain valid, that is, the assumptions and data values are consistent between these two FSR's (with the exception of further equipment being added in the second FSR).

Given that the input values in second FSR have not changed compared to the first FSR, was developed around the project's starting date, it is thus reasonable to assume that values used in the investment analysis based on the first FSR was still valid when the investment decision was made, which was 1 June 2007.

Step 4: Cross-check of the parameters used in the financial analysis with the parameters used by other similar projects

The input parameters used in the financial analyses were compared with the data reported for other similar proposed CDM projects in the region, i.e. two other ventilation air methane destruction and coal mine methane power projects in the Henan province, by comparing investment costs per MW (kcal), electricity tariff, and percentage of O&M costs relative to total investment costs to assess whether the input parameters used in this project are within similar ranges compared with those two projects. By additionally applying our sectoral competence, DNV was able to confirm that the input parameters used in the financial analysis are reasonable and

adequately represent the economic situation of the project at the time of the final investment decision.

Comment 2:

The monitoring of the methane destroyed by power and by heat (MD_{ELEC} and MD_{HEAT}), the relative proportion of NMHC compare to methane (r), the methane and NMHC concentrations (PC_{CH4} and PC_{NMHC}) should be included in section B.7.1. of the monitoring plan.

DNV Response:

The above parameters have been added to section B.7.1 of the monitoring plan in the revised PDD.

Comment 3:

Individual monitoring and QA/QC procedures for each site should be presented in the PDD.

DNV Response:

QA/QC procedures have been added in the revised PDD. These monitoring and QA/QC procedures are appropriate to reflect the practice at each site and to ensure a reliable monitoring process.

Comment 4:

The DOE should clarify how it can be assured that the efficiency of methane oxidation in vocsidizer (Eff_{HEAT}) will be maintained at the manufacturers specifications throughout the crediting period.

DNV Response:

It must be noted that DNV has assessed the project based on version 03 of ACM0008. This version does not give any detailed guidance on how to assure the efficiency of the methane destruction of the ventilation air methane. DNV acknowledges that version 04 of ACM0008 is more detailed with respect to assessing and monitoring the efficiency of methane oxidation of VAM.

DNV's assessment of the efficiency of methane oxidation in vocsidizer is based on test reports for existing installations of the equipment. The test reports show that the oxidation efficiency remains within the range of 97.4% - 98.5% throughout the eight years test. The trends in these reports indicate that the efficiency of methane oxidation in vocsidizer (Eff_{HEAT}) will be maintained above 97% throughout the crediting period when the operations follow the manufacturer's specifications. DNV was also able to confirm that the test results were representative and the design principle was reliable.

DNV acknowledges that monitoring of selected operational parameters would further assure that the efficiency of the methane oxidation is maintained.

We sincerely hope that the Board find our elaboration on the above satisfactory.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION AS



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