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Att: CDM Executive Board

Your ref.:
CDM Ref 0001

Our ref.:
MLEH

Date:
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CERTIFICATION AS
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Response to requests to review HFC Decomposition Project in Ulsan (0003)

Dear Members of the CDM Executive Board,

We refer to the issues raised by the requests for review by three Board members regarding our request of issuance of CERs for project activity 0003 “HFC Decomposition Project in Ulsan” and would like to provide the following initial response to the issues raised.

Comment 1:

According to the monitoring, “all of the measurement instruments except HFC 23 flow meters are to be recalibrated monthly”. The verification report states that the calibration records of meters measuring fuel gas, steam, HCFC 22 and electricity used during destruction process were lost and not provided during the site visit and the verification team requested the participants to conduct an immediate calibration. The DOE raised CAR 1, but did not close it in the report. Clarification is required how the calibration done by the project participant has met the requirement in the PDD that, “All of the measurements are to be recalibrated monthly per internationally accepted procedure”.

DNV Response

The nature of the nonconformity was inappropriate archiving of the calibration records. Hence, the relevant requirement defined in the PDD can no longer be fulfilled afterwards. The verification team raised the corrective action request in order to prevent the reoccurrence of this. However, the corrective action request was not aiming for correction of the nonconformity for the monitoring period in question. The project participants had already submitted a corrective action plan stated in “Response 2” and the response is deemed reasonable. The corrective action will be closed if it is verified to be effectively implemented during the next verification.

Comment 2:

In addition, the DOE shall further clarify how they assess the risk implication of calibration records not being maintained appropriately, how they ensured that the established monitoring procedures are in compliance with the pertinent methodology and which measures have adopted to systematically address the problem of the loss of calibration records. Finally the DOE shall fully clarify why they understand that calibration made in July 2007, are appropriate for a monitoring report covering the period April 2007 to 30 June 2007.

DNV Response

If the readings of the measurements of natural gas, electricity and steam consumed were larger than the true values, the emission reduction calculation will be more conservative. On the other hand, if the readings are smaller than the true values, the emission reduction calculations will be less conservative. However, the emissions due to natural gas combustion, electricity/steam consumption are quite small in comparison with the CER (approximately less than 0.02% of CER) and the risks is thus considered negligible.

The amounts of daily HCFC 22 flow are measured by means of the level gage of the interim tank. The larger readings than the true value may increase the cut-off value of HFC 23 decomposed. However, the amount of HCFC 22 produced during the period was cross-checked with the commercial inventory report and thus the risk is limited.

According to the corrective action plan prepared by the project participants, they had analyzed the cause of the nonconformity and concluded that the former documented procedure for the calibration didn't clearly state how to maintain the calibration record. New personnel were assigned in the beginning of April 2007 and the new person appeared to be unfamiliar with the need for archiving the of calibration records due to the lack of a clear procedure. The project participants thus changed the procedure in order to prevent the similar problem and to maintain the calibration records properly.

Comment 3:

The DOE states that in their opinion, "the project's reported GHG emission reductions for the period from 1 April 2007 to 30 April 2007 as reported in the CDM Monitoring Report for the project (Volume 9, Version 1.01, 11 April 2007 and Version 1.02, 21 August 2007), are fairly stated". They should clarify what is their understanding of the reference to fairly stated.

DNV Response

In this context, "fairly" describes that there are no fraudulent or improper actions behind the presented numbers. The term "fairly" is generally used in assurance reports with a reasonable assurance engagement (see for example *International Federation of Accountants: International Standard on Assurance Engagements 3000 - Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*).

Comment 4:

As reported in the Verification Report, in page 6 of 25, "The emission reductions reported from the "HFC Decomposition Project" in Ulsan for the period 1 April 2007 to 30 June 2007, equating to 705,570 tonnes of CO₂ equivalent, are larger amount than the average monthly amount stated in the PDD". Thus the project has exceeded annual emission reductions by 68.5% over the average annual emissions stated in the PDD (2,358,616 against 1,400,000). This is on account of higher production of HCFC during the year. In the three month period April – June 2007 under the current monitoring sequence, the production figure reported in the Monitoring Report is 2113.5 tons as against 1875 tons based on annual installed capacity of 7500 tons as reported in the registered PDD. While this might be in accordance with the provisions in the applied approved methodology AM0001 Ver 02 regarding upper limit for CERs, the DOE shall fully clarify if it has verified the reasons for this increase, including inter alia, how was production of HCFC increased, whether there were increases in installed capacity, if this responds to production plans and if these production plans are in line with the PDD estimations, which and how big are the financial impacts of anticipating production of HCFC during the year and how the DOE envisages that the excess production is going to be ultimately compensated in the next monitoring period.

DNV Response

The installed capacity of the HCFC 22 plant is 25 tons per day equivalent to 7500 tons per year. The normal operational days in a year are 300 days excluding annual planned shut down and some occasional shut down for minor maintenance. During the monitoring period from 1 April 2007 to 30 June 2007, the HCFC 22 plant was operated for 84 days, 13 hours and 10 minutes which is equal to 84.55 days. The HCFC 22 production of 2113.5 tons attained during the period is nearly equal to 2113.7 tons (25 tons/day X 84.55 days = 2113.7 tons). Thus the HCFC 22 production during the period did not exceed the installed capacity.

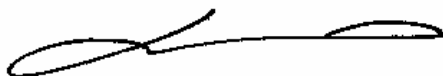
At the time of the request for registration, the HCFC 22 plant had been operated as a HCFC/CFC swing plant and a typical HFC 23 generation of 120 tons per year (120 tons x 11700 ton CO₂e = 1,404,000 ton CO₂e) was obtained based on the historical HCFC 22 production from 2000 to 2002 and HFC 23 / HCFC 22 ratio. However, the plant has been operated only for HCFC 22 production since 2003. Thus HCFC 22 production might increase up to 7500 tons per year without any capacity expansion.

During August to September 2007, the plant has been stopped as an annual planned maintenance for more than 46 days, and it is expected to be shut down for another some ten days for occasional maintenance during the rest of the year. Thus the total production amount of HCFC 22 in 2007 will be approximately 7500 tons.

We sincerely hope that the Board find our elaboration on the above satisfactory and look forward to the issuance of CERs for this project activity.

Yours faithfully

for DET NORSKE VERITAS CERTIFICATION AS



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