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The Executive Board of the Clean Development Mechanism
UNFCCC Secretariat
Bonn, Germany

Submit through DNV Certification
International Climate change Services

Response to request for review 'HFC23 Decomposition Project at Zhonghao Chenguang Research Institute of Chemical Industry, Zigong, SiChuan Province, China' (Ref. no. 0767)

Dear Mr. Schmidt,

We have been informed that the request for issuance for CDM project activity "HFC23 Decomposition Project at Zhonghao Chenguang Research Institute of Chemical Industry, Zigong, SiChuan Province, China" (Ref. no. 0767), is under the consideration for review because three requests for review have been received from members of the Board.

To address the reasons for the requests for review, we would like to comment on reasons for review and provide additional information.

For better understanding, we will start with a brief introduction of the gas flow of our project (see figures below).

Normal situation

Under normal operation of HFC23 incinerator, all the generated HFC23 is destructed by the incinerator, and the gaseous effluent after the destruction process is released to the atmosphere through the exhaust stack, while the valve before the emergency exhaust stack is always closed. Please refer to Fig1.

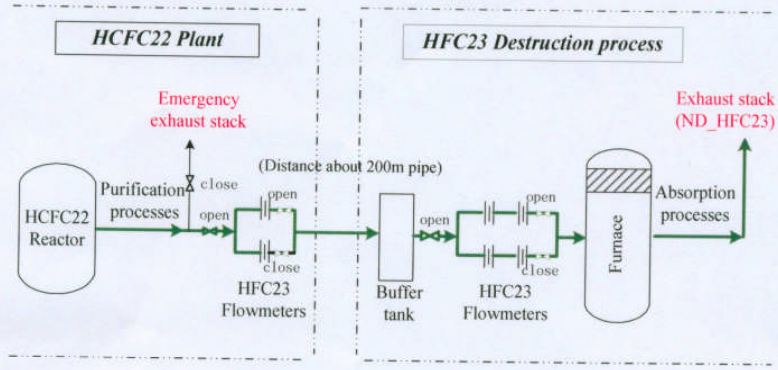

Fig1: Normal situation

Emergency situation

During the downtime of the HFC23 incinerator, if HCFC22 is still being produced, as emergency response, the valves before the incinerator are switched off, and the valve before the emergency exhaust stack is switched on, therefore, all the generated HFC23 is directly emitted to the atmosphere via the emergency exhaust stack. Please refer to Fig2.

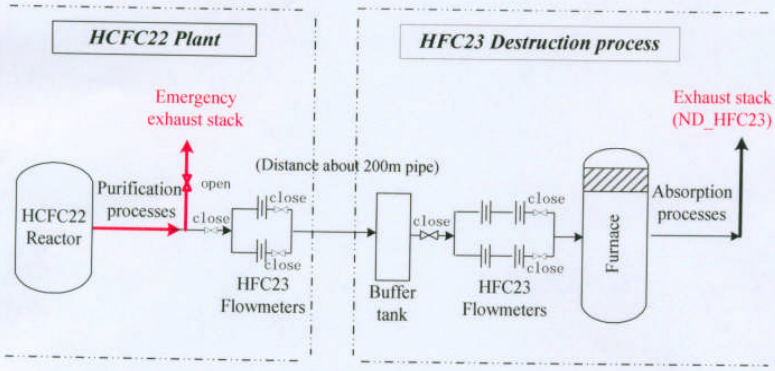

Fig.2 : Emergency situation

The above emergency response ensures that during downtime of HFC23 incinerator, the generated HFC23, which has to be emitted to the atmosphere, will not be counted into the mass flow meters and then to be used for claiming CERs.

Below are our comments on reasons for the request for review.

Reason

1. The monitoring report stated that the HFC23 generated during the shut down of HFC23 incinerator (6-7 July 2007) was emitted to the atmosphere while HCFC22 plant was operated normally. The methodology requires that "when the thermal oxidizer stops, analysis of the effluent is done to check leaked HFC23 by sampling." However, the appendix 3 of the quantity of HFC23 in gaseous effluent did not provided the quantity of HFC23 not destroyed during these specific shutdowns. Instead, the quantity of destroyed including the downtime was calculated based on the detection limit of HFC23 by GC, the volume of tail gas and density of HFC23 gas, resulting in 8.5292 kg HFC23. Further clarification is required.

Our Response

As required by the methodology AM0001/Version 4, when the thermal oxidizer stops, analysis of the effluent is done to check leaked HFC23 by sampling. To be specific as described in methodology (p11, D.6), ND_HFC23 is measured from the gas effluent of the destruction process, which refers to the gaseous effluent from the exhaust stack in our project (see Fig.1and Fig.2 above). Hence, the HFC23 emitted to atmosphere from the emergency exhaust stack, which is before the mass flow meters and the destruction process, is not related to ND_HFC23.

When the HFC23 incinerator stops and the valves before the incinerator are switched off, there was only a small possibility that a tiny amount of HFC23 may stay as residue in the incinerator and go through the exhaust stack. This amount of HFC23 gas might not be destructed completely and need to be monitored to comply with the methodology. During the downtime of HFC23 incinerator (6-7 July 2007), we analyzed the exhaust stack gas and the results were shown as "not detected". Besides, all the analyses of exhaust stack gas during this monitoring period were shown as "not detected" (The results had been provided to DOE for verification purpose). So GC detection limit was adopted to represent the analysis results.

Therefore, the quantity of HFC23 not destroyed (ND_HFC23) in this monitoring period (May 26, 2007 to August 25, 2007) including downtime was calculated based on the detection limit of HFC23 by GC, the volume of tail (exhaust stack) gas and density of HFC23 gas, that is ND_HFC23_y = GC_detection limit * V_{stack} * DG_{HFC23}, resulting in 8.5292kg HFC23 as described in appendix 3 of the monitoring report. Please see the calculation below (same as the monitoring report).

Date	GC-FID Detection Limit (%)	Analysis Data (%)	Max (%)
May 26, 2007 - Jun 25, 2007	0.000 5	Not detected	0.000 5
Jun 26, 2007 - Jul 25, 2007	0.000 5	Not detected	0.000 5
Jul 26, 2007 - Aug 25, 2007	0.000 5	Not detected	0.000 5

Date	Max (%)	Quantity of gaseous gas (Nm^3)	Density of gaseous effluent (kg/Nm^3)	ND_HFC23 (kg)
May 26, 2007 - Jun 25, 2007	0.000 5	200 122.33	3.126	3.127 9
Jun 26, 2007 - Jul 25, 2007	0.000 5	175 768.97	3.126	2.747 3
Jul 26, 2007 - Aug 25, 2007	0.000 5	169 803.88	3.126	2.654 0
Total ND_HFC23_y				8.529 2

Reason

2. Further, for the purpose of the check of the w factor, the project participant has calculated HFC23 generated during the downtime as 1.7172 t, based on HCFC22 production during the downtime and the maximum w factor of 3.23%. In relation to issue1 above, further clarification is required as how the DOE verified the actual quantity of HFC23 not destroyed.

Our response

Though the methodology does not mention how to deal with the emitted HFC23 during down time of HFC23 incinerator, we conservatively consider it in the calculation of w factor. As the emitted HFC23 is not required to be monitored by the methodology, it was not measured. So estimation of emitted HFC23 (1.7172t) is made basing on HCFC22 production during the downtime (53.1629t) and the maximum waste generation rate (3.23%). The relevant documents have been submitted to DOE for verification purpose.

We sincerely hope that the UNFCCC secretariat accepts our clarifications, and look forward to the issuance of CERs.

Thank you and best regards,

Zeng Benzhong
Vice President
Zhonghao Chenguang Research Institute of Chemical Industry