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29th June, 2007.

The Executive Board of the Clean Development Mechanism c/o Clean Development Mechanism Secretariate, United Nations Framework Convention on Climate Change Bonn, Germany

by email and fax

Submitted through

DNV Certification International Climate Change Services

Dear Sir

We have been informed, vide email dated 19<sup>th</sup> June, 2007, that the request for issuance for CDM project activity "Project for GHG emission reduction by thermal oxidation of HFC 23 in Gujarat, India." (Ref. no. 0001), is under consideration for review because three requests for review have been received from Members of the CDM Executive Board.

In this connection, we have prepared a short note titled "Response to the Requests for Review", which is attached herewith. We have also attached to the note, the revised Confidential monitoring workbook.xls, being Appendix 1 of the Monitoring Report. We request that this note and the revised workbook be considered by the CDM Executive Board during its deliberations at the 33<sup>rd</sup> Meeting of the CDM Executive Board, when the consideration of a review relating to the request for issuance is to be taken up.

We would also request the opportunity of being permitted to be present at the 33<sup>rd</sup> Meeting of the CDM Executive Board, as an observer, to be able to answer any question the Executive Board may wish to address during the consideration of the review.

We trust that the attached note, and the revised workbook, shall clarify the points raised in the Requests for Review, and confirm that the requirements of the Approved Methodology AM0001 Version 2, based on which the Project Activity has been registered, are complied with.

Thanking you in anticipation

With best regards For Gujarat Fluorochemicals Limited

Deepak Asher
Group Head (Corporate Finance)

# RESPONSE TO REQUESTS FOR REVIEW

#### A. Reasons for Requests for Review and Response thereto

#### Reason

 The Monitoring Report does not include the readings of the monitored parameters.

The "TENTH MONITORING REPORT" dated 17/05/2007 (called further MRv1) and the Confidential monitoring workbook.xls (Called further XLS file) do not include readings of the monitored parameters and the daily totals.

#### **Our Response**

The Tenth Monitoring Report includes the readings of the monitored parameters for the Monitoring Period. For example, at para 2.2.2, the two monitored parameters referenced are q\_HFC23y and P\_HFC23y. The values of these two monitored parameters for the monitoring period were 43.510 MT and 95.8055% respectively. Similarly, the Monitoring Report and the Confidential Monitoring Workbook include the values of the other monitored parameters as per the Approved Methodology as well, through paras 2.2.5, 2.2.6, etc.

The Approved Methodology does not require the daily totals of the monitored parameters to be provided. Hence, the Monitoring Report does not provide the daily totals of the monitored parameters. We understand the Monitoring Reports of the other issuances under this Approved Methodology also do not provide the daily values of the monitored parameters. Accordingly, the Monitoring Report is in compliance with the requirements of the Approved Methodology in this regard.

The data in respect of most of the monitored parameters is automatically archived in the computerized SCADA system on an on-line basis, and from this data, the daily values are electronically computed, and are verified by the DOE during verification. This data can be provided to the Executive Board, if required. However, providing this data alongwith each Monitoring Report shall be extremely voluminous and run into several hundreds of pages for some parameters.

While the Monitoring Report and the Confidential monitoring workbook.xls did include all the monitored parameters, the ID Tags in respect of the monitored parameters as used in the Approved Methodology were not indicated in the Confidential monitoring workbook.xls, and this perhaps might have led to the requests for review. We are modifying the Confidential monitoring workbook.xls to include the ID tags as per the Approved Methodology for the monitored parameters. The revised Confidential monitoring workbook.xls is enclosed with this response, for your kind consideration.



It might be noted that the values of the monitored parameters remain the same as earlier, the only change made in this regard being that a column indicating the ID Tags of the monitored parameters as per the Approved Methodology has been added to the Confidential monitoring workbook.xls.

#### Reason

2. The monitoring as applied is not according to the approved methodology

The methodology applied AM001v02 p.9 requires monitoring of the following parameters that cannot be found in the MVv1+XLS:

 ID7 – Q\_HCFCy – "The quantity of HCFC22 produced in the plant generating the HFC23 waste". This parameter was replaced in the XLS file by "Cumulative HCFC22 production during the year – based on the actual plant figures".

## **Our Response**

To exclude the possibility of manipulating the production process to increase the quantity of waste, the Approved Methodology requires the HCFC22 produced to be compared with the HFC23 generated. The quantity of HFC23 waste generated is limited to the cut-off ratio which is 2.90% based on the validated and registered Project Design Document.

The Approved Methodology requires this check to be done on an annual basis ("the quantity of HFC23 waste is limited to a fraction (w) of the actual HCFC production during the year at the originating plant"). Since verification is conducted more frequently than annually, the figures for the monitoring year are cumulated to apply the cut-off ratio check. We realize that this led to the nomenclature used for this data parameter to be not strictly in accordance with the Approved Methodology.

We are therefore modifying the Confidential monitoring workbook.xls to include a column defining the monitored data variable exactly as per the Approved Methodology. The revised Confidential monitoring workbook.xls is enclosed with this response, for your kind consideration.

It might be noted that the values of the monitored parameters remain the same as earlier, the only change made in this regard being that a column indicating the nomenclature used for each data parameter as per the Approved Methodology has been added to the Confidential monitoring workbook.xls.

#### Reason

 ID8 – HFC23\_sold – "HFC23 sold by the facility generating the HFC23 waste" This parameter was not monitored. However, this parameter was



checked by the DOE, as described in Verification Report April 01 – May 05 2007 Revision No. 1 dated 2007-05-24 (called further VR1) Section 3.1.4 item 9.

## **Our Response**

This parameter has been monitored, as required by the Approved Methodology. Reference is kindly invited to the second paragraph of Para 2.3 (Check against Baseline Requirements) of the Monitoring Report. This paragraph reads "No HFC23 was sold during the Monitoring Period". This was intended to convey that the value of this parameter "HFC23\_sold" during the Monitoring Period was zero.

This parameter has also been verified by the DOE during verification. Item 8 of Para 3.1.4 of the Verification Report states "No HFC23 has been sold during the reporting period. This is verified via excise statements and returns filed with statutory authorities." Excise statements and statutory returns in this regard are mandatory filings required to be made, under local tax laws, for all despatches from the factory.

However, this parameter was inadvertently not included in the Confidential monitoring workbook.xls. For the sake of completeness, we are modifying the Confidential monitoring workbook.xls to include this data parameter as well, though the value thereof is zero. The revised Confidential monitoring workbook.xls is enclosed with this response, for your kind consideration.

#### Reason

#### 3. The Monitoring Report Appendix-1 is missing

MRv1 Section 2.1.3: "The data being collected in order to monitor the GHG reduction is given in the table in Appendix-1 to this Monitoring Report." "Appendix -1" is mentioned in the MRv1 more seven times. However I cannot find this "Appendix-1".

#### **Our Response**

The Appendix-1 to the Monitoring Report is the Confidential monitoring workboook.xls. It will kindly be noticed that the Confidential monitoring workbook.xls is titled Appendix-1. This was duly uploaded by the DOE along with the Request for Issuance.

From para 1 of the Request for Review, it can be inferred that this Appendix-1 has been received and perused by the CDM Executive Board.

However, as stated, we are enclosing with this response the revised Confidential monitoring workbook.xls for your kind consideration. This "revised" Confidential



monitoring workbook.xls remains the same as earlier, except for the following changes explained hereinabove:

- A column indicating the ID Tags of the monitored parameters as per the Approved Methodology has been added.
- A column indicating the nomenclature used for each data parameter as per the Approved Methodology has been added.
- The data parameter HFC23\_sold is added, even though its value was zero.

The calculations in respect of emission reductions remain the same as earlier.

#### Reason

4. The amount of CERs requested is much higher than the estimation

The amount of CERs requested is 69% higher than the approved estimation of the emissions reduction.

4.1 The DOE should verify the HCFC22 production each month of the verification period and should explain the reasons for the 69% increase of CERs requested.

#### **Our Response**

The "estimate" of emission reductions provided in the validated and registered Project Design Document was based on a purely illustrative production figure of 10,000 MT of HCFC22 per year. The table providing the calculations of emission reductions in the registered Project Design Document clearly states that this is an "Illustration for 10000 MT of production of HCFC22".

Further, paragraph E.6 of the validated and registered Project Design Document states that "The amount of HFC 23 decomposed in a year would depend upon HCFC 22 production in a particular year." It further states that "The production in calendar years 2004 and 2005, as per GFL's business plan, would be 15,000 TPA and 18,500 TPA respectively." This production is expected to increase going forward, based on market conditions, till the plant capacity is reached.

The DOE has confirmed in the verification report (para 1.3) that the HCFC22 production during the verification period is "well within the installed capacity as per the validated Project Design Document" and (para 3.1.1) that "the cumulative reported ratio of 2.63% is correct and does not exceed the 2.9% threshold applied by the project for this factor."

Hence, it is respectfully submitted that the Request for Issuance is in compliance with Version 2 of the Approved Methodology AM0001, under which this Project has been registered.



#### Reason

4.2 The DOE should verify that daily HCFC22 production does not exceed the maximum daily production capacity (60,000 kg/d)

#### **Our Response**

The daily production capacity as per the validated and registered Project Design Document is up to 75 MT per day of HCFC22. This is referred to at Para A.3.2.2 (f) of the registered Project Design Document, which states that "The plant has instantaneous installed capacity in excess of 60 TPD HCFC 22 (up to 75 TPD)."

Further, the DOE has verified that the daily HCFC22 production is within the installed capacity of the HCFC22 plant, as per the validated and registered Project Design Document. The last sentence of para 1.3 of the Verification Report reads "HCFC22 production during the monitoring period is well within the installed capacity as per the Validated Project Design Document."

We confirm that during the Monitoring Period, the daily production of HCFC22 at the plant has not exceeded 75 TPD. We further confirm that we will not claim any CERs in respect of HCFC22 production in excess of the daily production capacity of 75 TPD.

#### Reason

4.3 The DOE should verify that the HFC23 destructed quantity does not exceed the maximum daily HFC22 production capacity multiplied by the waste generation rate (w=2.63%)

#### Our Response

As per the Approved Methodology, it is to be verified that the HFC23 generated quantity does not exceed the actual HCFC22 production multiplied by the waste generation rate, on an annual basis. The waste generation rate, in case of this project, as per the validated and registered Project Design Document, is 2.90%.

Since the Project began operations on the 13<sup>th</sup> February, 2006, this check has been applied, at every monitoring period, for the "monitoring year" beginning 13<sup>th</sup> February each year and ending 12<sup>th</sup> February of the next year. This approach ensures that there would be ten whole "years" for the crediting period of the Project.

This has been monitored in para 2.3 of the Monitoring Report which states that "The waste generation rate for the year to date, was less than 2.90% cut-off rate defined in the Project Design Document, as shown below........"

This has also been verified by the DOE. Reference is kindly invited to the first parameter at para 3.1.1 (page 7) of the Verification Report, which states that



"The verification team has assessed and reported the "w" factor and compared this to the production numbers of HCFC22 and HFC23 found in SCADA data sheets, as well as HFC23 storage records. The cumulative reported ratio of 2.63% is correct and does not exceed the 2.9% threshold applied by the project for this factor."

#### **B.** Conclusion

We trust this response clarifies the points raised in the Requests for Review, and confirms that the requirements of the Approved Methodology AM0001, Version 2, based on which this Project has been registered, have been complied with.

## C. Background Documents

- Project Activity: Project for GHG emission reduction by thermal oxidation of HFC23 in Gujarat, India; Project Activity 0001, registered by the CDM Executive Board on 8th March, 2005, as Ref No 0001
- 2. Approved Baseline and Monitoring Methodology applicable: AM0001 Version 2 Incineration of HFC23 waste streams
- Project Design Document: Project for GHG Emission Reduction by Thermal Oxidation of HFC23 at HCFC22 Plant of Gujarat Fluorochemicals Limited (GFL), prepared by PWC, Revision 3.
- 4. Monitoring / Verification Period: 01st April 2007 to 5th May 2007
- 5. Monitoring Report: 10<sup>th</sup> Monitoring Report dated 17<sup>th</sup> May, 2007
- Verification Report: Verification Report APRIL 01 MAY 05 2007 REVISION NO. 01 dated 2007-05-24

#### D. Enclosures

Revised Confidential monitoring workbook.xls



ID Number As per AM0001 Ver2)	Data variable (As per AM0001 Ver2)	Data Name	Explanation	Uncertainty level of data	Data Value in Monitoring Period	Unit of Measurement	Measurement of data
1. q_HFC23y	Quantity of HFC 23 supplied to the destruction process	q_HFC23,	Quantity of waste HFC23 supplied to the destruction process during the period y	Low	43.510	MT	This flow is measured using 2 mass flow meters placed in series. The lower of the two measurements is considered for calculations
2. P_HFC23y	Purity of the HFC 23 supplied to the destruction process	P_HFC23,	Purity of waste HFC23 supplied to the destruction process during the period y	Low	95.8055%	%	Measured using Gas Chromatography
		Q_HFC23 <sub>v</sub>	Quantity of waste HFC23 destroyed in the destruction process during the period y		41.684	MT	Calculated
		r <sub>v</sub>	Fraction of waste stream required to be destroyed by the applicable regulations during the period y		0.00%	%	Regulation
		B_HFC23,	Quantity of waste HFC23 required to be destroyed by applicable regulation during the period y		0.000	MT	Calculated
		Q_HFC23 <sub>v</sub> - B_HFC23 <sub>v</sub>			41.684	МТ	Calculated
		GWP_HFC23	Global Warming Potential value for HFC23		11700		IPCC Guidelines
		(Q_HFC23, - B_HFC23,) * GWP_HFC23			487702	in the second	Calculated
4. ND_HFC23y	Quantity of HFC 23 in gaseous effluent	ND_HFC23 <sub>v</sub>	Quantity of HFC23 in gaseous effluent and not destroyed during the period y	Low	0.0000	MT	Analysis of the stack emissions is done to check leaked HFC23 by sampling
		GWP_HFC23	Global Warming Potential value for HFC23		11700		IPCC Guidelines
			Equivalent tonnes of CO2 vented to atmosphere due to HFC 23 not destroyed		0.00	tCO2e	Calculated
3. Q_NGy	Quantity of natural gas used by the destruction process	Q_NG <sub>v</sub>	Quantity of natural gas used by the destruction process during the period y	Low	7754	kgs	Measured by natural gas flow meter
		E_NG <sub>v</sub>	Emissions coefficient for fuel combustion based on the net calorific value of the actual fuel used		0.00295	tCO2e/kg	AM0001 (Version 2)

ID Number As per AM0001 Ver2)	Data variable (As per AM0001 Ver2)	Data Name	Explanation	Uncertainty level of data	Data Value in Monitoring Period	Unit of Measurement	Measurement of data
			as site, as given by the fuel supplier				
			CO <sub>2</sub> emissions due to natural gas used in the project activity		22.87	tCO2e	Calculated
		Q_HFC23 <sub>v</sub>	Quantity of waste HFC23 destroyed in the destruction process during the period y		41.684	MT	Calculated
		EF	Emission factor of HFC23		0.6285		AM0001 (Version 2)
			Equivalent tonnes of CO2 vented to atmosphere due to HFC 23 destruction		26,20	tCO2e	Calculated
		E_DP <sub>y</sub>	Emissions due to the destruction process during the period y		49.07		Calculated
5. Q_F1,y,y	Electricity consumption by the destruction process	Q_Power <sub>v</sub>	Quantity of electric power used by the Project Activity during the period y	Low	103587	KwH	Measured using electricity meter reading and log sheet record, and estimated with actual load for common supplies
		F_Power <sub>v</sub>	Emission factor of electric power		0,0006	tCO2e/kwh	Based on actual plant figures
			CO <sub>2</sub> emissions due to electricity used in the project activity		62.15	tCO2o	Calculated
5. Q_F2,y,y	Steam consumption by the destruction process	Q_Steam,	Quantity of steam used by the Project Activity during the period y	Low	82030	kgs	Measured using steam flow meter
		F_Steam <sub>y</sub>	Emission factor of steam		0.00019	tCO2e/kgs	Based on actual plant figures
			$\mathrm{CO}_2$ emissions due to steam used in the project activity		15,59	tCO2e	Calculated
		Q_Lime <sub>v</sub>	Quantity of Hydrated lime used by the Project Activity during the period y	Low	0.000	MT	Measured as per log sheet / inventory records
		F_Lime <sub>v</sub>	Emission factor of lime		0.536	tCO2e/MT	Based on PDD, depending on composition of delivered lime

ID Number as per AM0001 Ver2)	Data variable (As per AM0001 Ver2)	Data Name	Explanation	Uncertainty level of data	Data Value in Monitoring Period	Unit of Measurement	Measurement of data
		F_Lime_Transport <sub>v</sub>	Emission factor of lime transport		0.270	tCO2e/MT	Based on transport of delivered lime
			CO <sub>2</sub> emissions due to lime used in the project activity (including due to transport to the location of the project activity)		0.00	fCO2o	Calculated
		Q_Caustic <sub>v</sub>	Quantity of 47% Caustic Soda lye used by the Project Activity during the period y	Low	7.956	MT	Measured as per log sheet / inventory record
		F_Caustic <sub>v</sub>	Emission factor of Caustic Soda		(3000 * 0.0006) 1.800	tCO2e/MT	From PDD
		F_Caustic_Transport,	Emission factor of Caustic Soda transport		0.028	tCO2e/MT	From PDD
			CO <sub>2</sub> emissions due to caustic used in the project activity (including due to transport to the location of the project activity)		6,84	tCO2e	Calculated
		Q_Solidwaste <sub>v</sub>	Quantity of Solid Waste generated by the Project Activity and removed during the period y	Low	0.000	MT	Measured as per log sheet / inventory recon
		F_Solidwaste <sub>v</sub>	Emission factor of solid waste transport		0.028	tCO2e/MT	From PDD
			CO <sub>2</sub> emissions due to transport of ETP Sludge from the location of project activity		0.00	tCO2c	Calculated
	10000	Q_DHF_Sold <sub>v</sub>	Quantity of dilute (20%) HF generated by the Project Activity and sold during the period y	Low	142.490	MT	As per sales invoices raised and laboratory reports
		F_DHF_Sold,	Emission factor of dilute HF sold		0.270	tCO2e/MT	Based on actual plant figures
			CO <sub>2</sub> emissions due to transport of dilute HF sold from the location of project activity		38.47	tCO2e	Calculated
		L	Leakage = emissions of greenhouse		123.05		Calculated

ID Number As per AM0001 Ver2)	Data variable (As per AM0001 Ver2)	Data Name	Explanation	Uncertainty level of data	Data Value in Monitoring Period	Unit of Measurement	Measurement of data
			gases due to the Project Activity that occur outside the project boundary during the period y				
		ER <sub>y</sub>	Emission Reduction achieved by the Project Activity during the period y		487529		Calculated
Q_HCFCy	The quantity of HCFC22 produced in the plant generating the HFC23 waste	HCFC22 Production	Cumulative HCFC22 Production during the year	Low	4328.810	MT	Based on actual plant figures
8. HFC23_sold	HFC 23 sold by the facility generating the HFC 23 waste	HFC23_sold	HFC 23 sold by the facility generating the HFC 23 waste		0.000	MT	As per sales / inventory records
		HFC23_Generation	Cumulative HFC23 generation during the year	Low	113.985	MT	Based on actual plant figures
		Ratio_W	Ratio of Cumulative HCFC22 Production during the year and HFC23 generation during the year		2.63%	%	Calculated

