



Mr. R. K. Sethi
Chair, CDM Executive Board
UNFCCC Secretariat
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18th September 2008

Dear Mr. Sethi,

RE: Request for Review of the request for issuance for the CDM project activity “GHG emission reduction by thermal oxidation of HFC 23 at refrigerant (HCFC-22) manufacturing facility of SRF Ltd” (Ref. no. 0115) for the thirteenth monitoring period from 01-01-2008 to 31-03-2008.

SGS has been informed that the request for issuance for the CDM project activity “GHG emission reduction by thermal oxidation of HFC 23 at refrigerant (HCFC-22) manufacturing facility of SRF Ltd” (Ref. no. 0115) for the thirteenth monitoring period from 01-01-2008 to 31-03-2008 is under consideration for review because three requests for review have been received from members of the Board.

The requests for review are based on the same reason outlined below. SGS would like to provide an initial response to the issue raised by the requests for review:

Requests for Review 1-3, Issue 1:

1. *The DOE/PP are requested to justify how the emission reductions are claimed for an extra quantity (9.139 MT) of HFC-23 which was not destroyed in this monitoring period.*

SGS' Response to Issue 1:

The $Q_{HFC,cr,i,y}$ (Quantity of HFC-23 destruction credited in the monitoring period i of year y) has been calculated as per paragraph 6 (a) of EB39 annex8 as explained below. The quantity 9.139MT is not an extra quantity but destroyed eligible stock for emission reduction in year y which was not claimed in previous monitoring period due to the restrictions in the formula itself.

The quantity of HFC-23 eligible for emission reduction is calculated in the monitoring period n of the year y where n is monitoring periods from the start of the year up to the monitoring period i . For this period, the year y starts from 01 July 2007. The eligible HFC-23 is calculated as minimum of eligible HFC-23 generated in the monitoring period n of the year y in addition to $Q_{HFC23,co,i,y}$ (Quantity of HFC-23 stored by the end of year $y-1$ and eligible for destruction in year y) and the HFC-23 destroyed in the monitoring period n of the year y and then already claimed HFC-23 (Quantity of HFC-23 destruction credited in the monitoring period m of year y) is subtracted to calculate the $Q_{HFC,cr,i,y}$. Please refer paragraph 5 of EB39 annex8 for calculation of eligible HFC-23. The same is well explained in the ‘material balance sheet’ (row 165) uploaded with the request for issuance.

Thus, the quantity 9.139MT although not destroyed in this monitoring period i but destroyed in the monitoring period n of the year y and hence eligible to claim emission reductions in this monitoring period.

$$Q_{\text{HFC,cr,i,y}} = \text{MIN} \left\{ \text{MIN} \left(Q_{\text{HCFC22,HIST}} \cdot \sum_{n=1}^i Q_{\text{HCFC22,n,y}} \right) \times \text{MIN} \left(W; \frac{\sum_{n=1}^i Q_{\text{HFC23,g,n,y}}}{\sum_{n=1}^i Q_{\text{HCFC22,n,y}}} \right) + Q_{\text{HFC23,co,i,y}} \right\} - \sum_{m=1}^{i-1} Q_{\text{HFC23,cr,m,y}}$$

Where:

- $Q_{\text{HFC23,cr,i,y}}$ = Quantity of HFC-23 destruction credited in the monitoring period i of year y
- $Q_{\text{HCFC,y,max}}$ = The maximum annual HCFC-22 production that is eligible for crediting as determined and fixed in the registered CDM-PDD
- $Q_{\text{HCFC22,n,y}}$ = Quantity of HCFC-22 produced in monitoring period n of year y
- $Q_{\text{HFC23,co,y}}$ = Quantity of HFC-23 stored by the end of year $y-1$ and eligible for destruction in year y (as defined above)
- $Q_{\text{HFC23,g,n,y}}$ = Quantity of HFC-23 generated in the monitoring period n of year y
- $Q_{\text{HFC23,d,n,y}}$ = Quantity of HFC-23 destroyed in the monitoring period n of year y
- $Q_{\text{HFC23,cr,m,y}}$ = Quantity of HFC-23 destruction credited in the monitoring period m of year y
- I = Monitoring period for which issuance of CERs is requested
- n = Monitoring periods from the start of the year up to the monitoring period i
- m = Monitoring periods of year y that preceded the monitoring period i

Requests for Review 1-3, Issue 2:

2. The monitoring report (p. 3) stated that the incinerator was not operated due to the lack of sufficient HFC23 for incineration, planned and unplanned stoppages and non-availability of fuel.
- 2.1 The monitoring report only mentioned the period when the incineration plant was not operated in 2007 rather than in 2008. Further clarification is required.
- 2.2 The methodology and monitoring plan require the measurement of the quantity of HFC 23 in gaseous effluent when the thermal oxidizer stops. The DOE is required to clarify how this requirement has been met.
- 2.3 The quantity of HFC23 in gaseous effluent stated in the monitoring report (p. 19 and p. 12) is inconsistent.

SGS' Response to Issue 2:

2. As mentioned in the (MR) monitoring report (p.3), the HFC 23 generated during the HCFC 22 productions run is stored before being fed to the incinerator. This HFC 23 is incinerated in campaigns when a reasonable amount of HFC 23 has collected in storage as it is not very efficient to run the incineration plant on a daily basis with sub-optimal load. Besides lack of sufficient HFC 23 for incineration, the incinerator may remain shut for other reasons such as: planned maintenance, unplanned stoppages, non-availability of fuel etc. Accordingly, for a combination of factors, the incineration plant was not operated for 413.02 hours in Oct' 07, 192.35 hours in Nov' 07 and 500.38 hours during Dec' 07. This is clear that the incinerator was not operated due to the lack of sufficient HFC23 for incineration, planned and unplanned stoppages and non-availability of fuel in year 2007. The same has been revised for the applicable monitoring period in the monitoring report version 4.
- 2.1 The operating hour reporting is not the requirement of monitoring methodology or registered PDD. However the same has been revised in the monitoring report version 4 which is attached with this response.
- 2.2 To ensure that there is no leakage from the buffer tank or the incinerator when thermal oxidation plant is not working (stoppages and shutdowns), vent analysis of thermal oxidation system is done as per laid down Standard Operating Procedure (S.O.P.). HFC-23 produced is stored in the buffer

tank and then fed to the thermal oxidation system from the buffer tank. The buffer tank has sufficient storage capacity of 60MT while the daily generation of HFC 23 is around 1.0 to 1.2 MT when the HCFC 22 facility runs to its capacity. During the time when HCFC 22 plant is running but the Thermal Oxidation Plant is not working, the plant operator continues to store HFC 23 in the buffer tank. As explained in the verification report section 3.2 (monitoring results) (last paragraph p.9/17), the quantity of HFC 23 in gaseous effluent was verified with the gas chromatograph (GC) and also verified with the percentage of organic in the effluent stream which was found zero. The GC is also calibrated internally every week as per standard procedures (HPCHEM method 22) and the chromatographs of the calibration are kept in plant records, which were checked and found satisfactory.

- 2.3 The quantity of HFC23 in gaseous effluent stated in the MR (p. 19) is zero because the same was below the detectable limit. At (p.12) of the MR on conservative basis, the same was assumed to be 0.01% of QHFC,cr,i,y (88.54910MT). The same is explained at p.11 of the MR which clarifies that the quantity of HFC 23 not destroyed (ND HFC23y) is typically small. In SRF project the fraction not destroyed is 0.01% as per guaranteed and achieved combustion efficiency of 99.99%. The monitoring plan provides for the periodic on site measurement of ND HFC23y.

Requests for Review 1-3, Issue 3:

3. The monitoring plan requires continuous measurement of the quantity of power consumed for the destruction process while the quantity of power consumption in the monitoring report is calculated based on meter readings from two meters and estimation of consumption of common utilities. Further clarification is required.

SGS' Response to Issue 3:

As explained in the verification report section 3.2 (p.10), the quantity of power consumed for the destruction process is continuously monitored by two energy meters and the readings are recorded in the log books as per the monitoring plan requirement. On conservative side, the quantity of power consumption in the monitoring report is taken as maximum out of calculated based on meter readings from two meters and estimation of consumption of common utilities by multiplying the total connected load with the total number of running hours of the plant. The higher of two values (here based in the connected load) has been considered for calculations. The number of running hours were crossed check with the TO (Thermal Oxidation) plant operation.

This issue was raised during 10th verification in the request for review and the justification was accepted by CDM EB. Subsequently during 11th verification, a deviation was requested for the same which was approved by CDM EB as Dev0121 on 20th March 2008 and CERs were successfully issued. For the 12th verification, again CERs were successfully issued with out any question on the same. During this 13th verification, the same approach was taken by the PP and accepted by the DOE.

We apologize if the verification report has been unclear and hope that this letter and revised monitoring report address the concerns of the members of the Board.

Kaviraj Pradhan (+91 9871794624) will be the contact person for the review process and is available to address questions from the Board during the consideration of the review in case the Executive Board wishes.

Yours sincerely

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Encl:

Annex 1 - SRF's Thirteenth Monitoring Report_changes tracked_16 09 2008