

Mr. Hans Jurgen Stehr  
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Re Request for clarifications for issuance of the CER for "Optimization Of Steam Consumption at the Evaporator"(Ref. no. 0679)

Dear Mr. Stehr,

SGS has been informed that the request for issuance for the CDM project activity "Optimization Of Steam Consumption at the Evaporator"(Ref. no. 0679) for the monitoring period 01 April 2002 to 31 December 2006 is under consideration for review because three requests for review have been received from members of the Board.

The requests for review (R1, R2, R3) are based on the reasons outlined below and read. SGS would like to provide a response to the issue raised by the review team:

***Request for clarification to the DOE/PP:***

1. The annual amount of black liquor produced after the project implementation is significantly higher than the baseline, which was based one month production only. More information is required on black liquor production capacity in the baseline, and whether there were periods when productions during project implementation were beyond the normal production range  $\pm 5\%$  and how the specific steam consumption ratio (SSCR) were calculated during these periods.

**SGS Reply:** The baseline was based on approved methodology AM0018 version 01 which states that "In case there is no seasonal demand variation, one-month baseline data (daily average of production values and corresponding steam consumption values) are considered adequate". As stated in the registered PDD in section B.2 under calculation of baseline emission in page 12 and stated in validation report under baseline determination in page A-8, it is demonstrated that the output from the project plant is homogenous in nature and there is no seasonal variation during the baseline period hence one month data was considered adequate and representative. The data considered is further substantiated by analysis of data for one year.

Table 1:

Year	BLS (MT)	Steam Consumption (MT)
2001	116537	178796
Specific Consumption Ratio		1.53 (MT/MT)

From the above data for one year prior to the project implementation, specific steam consumption ratio (SSCR) works out to 1.53MT/MT which is worse than the baseline reported in the registered PDD (1.45MT/MT). Thus, one month data is also conservative. As the baseline was accepted during the registration hence this was also accepted during verification.

The specific steam consumption for the project activity is now calculated as per methodology by taking the normal production range and it was found that these are within  $\pm 5\%$  range. The steps used to calculate specific steam consumption are as:-

Step 1 – Identified the average representative daily BLS production values (Prep1) which are within the normal range of output for the year 'y'. The normal range for the project has been defined as the range of  $\pm 5\%$  of the plant output that takes place most of the time in the year. For the days when the actual output is beyond the  $\pm 5\%$  of the defined normal production range, it has been excluded from the data list for the calculation of specific steam consumption ratio for the project. This is as per the registered PDD and applicable methodology.

Step 2 – Identified the steam consumption values corresponding to daily BLS production values selected in Step 1 above.

Step 3 – Calculated the specific steam consumption ratio during the project operation as the ratio between the average representative daily production and corresponding steam consumption for the day.

This is now mentioned in revised monitoring report as Annex 1 and revised calculation sheet as Annex 2.

2. Additional consumption of electricity was calculated as the difference of electricity consumption in the baseline and in the project as per the PDD. However, the methodology indicates the measurement or calculation based on the nameplate rating of the electrical equipment should be used for monitoring additional electricity consumption. Since baseline electricity consumption was only based on one month data, further clarification is required if this approach is considered conservative and in accordance with the methodology.

**SGS Reply:** As per methodology for calculation of additional electricity consumption following options are available – “Sub-step 1: Monitor the shift-wise/batch-wise electrical consumption. If a monitoring facility is not available, take the maximum rating (Nameplate data) of the motor, heater or any other electricity consuming device as the consumption”. In the project activity as the energy meters (Meter Tag nos - MCC1 (71X4.3X1/2), MCC2 (71X40.3X3/4), MCC3 (71X40.3X5/6), MCC4 (71X40.3X7/8) are available at site, daily electrical consumptions were monitored and reported to derive the additional consumption of electricity.

In order to justify that the baseline electricity consumption based on one month data is conservative, the average specific consumption of electricity based on one year data prior to the project implementation has adverse baseline of 22.6kWh/MT of black liquor solids produced than against ex-ante baseline of 21.9 kWh/MT of black liquor solids based on one month data set in the validated registered PDD.

It will be seen from the above that the values taken from one month data are conservative even when compared to one year data. Thus, the approach of considering one month data for baseline is conservative and in accordance with methodology. So these were accepted during the verification as well.

3. The values of steam pressure and temperature for estimating enthalpy appear to be constant for over 3 years period covered by this monitoring period. Further explanation is required.

**SGS Reply:** The monthly reports were checked during the site visit along with the daily data as well. The daily data variation was such that the monthly average was coming out to be same or constant. The copy monthly report is attached as Annex 3 with this reply. Further more the plant has installed a DCS system and controls which does allow the deviation to occur but within the narrowest band of pressure and temperature. The project calculations are based on monthly data which is the average of daily measured data. The variation in daily measured parameters is within a very narrow band. So the values seem to be constant. This was checked during the site visit and this was found to be OK and hence these were accepted.

4. The calculation of the following parameters in the spreadsheet seem to be incorrect: steam production in November 2003, total fuel consumption in December 2004, and steam enthalpy calculation from May 2004 onwards due to addition of Boiler 6. Clarification is required.

**SGS Reply:** Calculation sheet was reviewed for the period November 2003, December 2004 and May 2004. The changes have been made and indicated in the excel sheet attached herewith as Annex 2.

Therefore, we feel that the clarification sought by board members has been taken into account. We do however apologize if this was not sufficiently clear from the earlier verification and certification report.

Sanjeev Kumar (0091 9871794628) 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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Annex 1 Revised Monitoring report  
Annex 2 Revised Calculation sheet  
Annex 3 Monthly sheet for Temperature & Pressure