MONITORING REPORT

Date of Submission: 19th May 2008

(For the monitoring period: 1st January 2007 to 31st December 2007)

INDO GULF FERTILISERS
(A Unit of Aditya Birla Nuvo Ltd.)

"Energy efficiency through installation of modified CO_2 removal system in Ammonia Plant"

Reference No. UNFCCC 00123

Project Location
Jagdishpur Industrial Area,
Jagdishpur, Distt. Sultanpur,
Uttar Pradesh, India

INDO GULF FERTILISERS
Jagdishpur Industrial Area,
Jagdishpur,
Distt. Sultanpur - 227817
Uttar Pradesh, India
Tel: 91-5361-270032 (to38)
Fax: 91-5361-270165
www.adityabirla.com

Current Status of the Project

Indo Gulf Fertilisers (IGF) 'Energy Efficiency through Installation of modified CO_2 removal system in ammonia plant', project at Jagdishpur has been commissioned and is operational since 21st July 2003.

First synchronization of the project activity with the process plant was performed on 21.07.2003 after trial operations.

During the present monitoring period from 1st January 2007 to 31st December 2007, the energy contribution share of NG and Naphtha fuel in total energy generated by fuel mix of service boiler is 79.44 % and 20.56 % respectively.

Statement to what extent the Project has been implemented as planned

The Project has been completed as planned and described in the Project Design Document (PDD).

The planned major outages are as described below

Date	No. of Days
16 th April - 30 April, 2007	15
1 May- 26 May, 2007	26
16 July-22 July, 2007	7
13 August-31 August, 2007	19
Total No. of Days	**67**

After the project has been implemented, the project proponent has not carried out any retrofit measures in the project boundary.

Monitoring Period

The Monitoring period is chosen from 01.01.2007 to 31.12.2007 (both days included).

Sustainability – Economic and Social well being

The project activity is the energy efficiency in CO_2 removal section and saving in thermal energy (i.e. NG and Naphtha).

The project activity is saving the thermal energy in the ammonia manufacturing process. The thermal energy conservation leads to saving in natural gas/naphtha; non-renewable finite fossil fuels.

As a part of social responsibility, Plant has been contributing to social infrastructure by way of employing local people for the cleaning and other non technical operations (During shut downs) and also paying significant amount as additional taxes due to monetary gains by energy savings.

Parameters being monitored according to Monitoring Plan

For the Project, the following parameters are being monitored on continuous basis:

S.No	Inputs	Source	Frequency / When	Review criteria	Reference
5.1.14.1	LP steam flow in GV (S_n) (Tag no: 03-FIC-02)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 E 1/8
5.1.14.2	Total CO_2 flow (C_{tot}) (Tag no: 03-FI-11)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 E 3/8

5.1.14.3	CO_2 flow from flue gases ($C_{flue\ gases}$) (Tag no: 24-FI-168)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 CDR PLANT PANEL
5.1.14.4	Temperature of steam (Tag no: 06-TIC-310/410)	Plant Log Sheets	Every Shift	Boiler Efficiency	PPU /SGP/ CR /01
5.1.14.5	Pressure of steam (Tag no: 06-PI-326/426)	Plant Log Sheets	Every Shift	Boiler Efficiency	PPU /SGP/ CR /01
5.1.14.6	F.W. temperature per shift (Tag no: 06-TI-316/416)	Plant Log Sheets	Every Shift	Boiler Efficiency	PPU /SGP/ CR /01
5.1.14.7	Steam generation per shift (Tag no: 06-FI-305/405)	Plant Log Sheets	Every Shift	Boiler Efficiency	PPU /SGP/ CR /01

5.1.14.8	Flow for individual fuels (Naphtha and Natural Gas) (Naphtha flow meter Tag no: 06-FIC-309/409) (Natural gas flow meter Tag no: 06-FIC-302/402)	Daily FICC Report ()	Every day	Naphtha / NG fuel ratio in boiler	PRC
5.1.14.9	Net Calorific value of fuel	GAIL Report/ Naphtha Supplier Report	Every day / As & when Received	Naphtha / NG fuel ratio in boiler	PRC/Quarterly report
5.1.14.10	LP steam Temperature (Tag no: 03-TI-01)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 E 3/8
5.1.14.11	LP steam Pressure (Tag no: 02-PIC-223)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 E 1/8
5.1.14.12	Condensate Temperature (Tag no: 03-TI-16)	Plant Log Sheets	Every Shift	Specific steam consumption in GV system	AMM D-01 E 3/8
5.1.14.13	Boiler efficiency	Ccalculate	Monthly	Emission reduction Calculation	Calculated

5.1.14.14	Retrofit	Plant Information	As and when occurs	Emission reduction calculation	Plant Information

Emission Reductions:

The emission reductions per month during Jan. - Dec., 2007 (till 31st Dec. 2007) are as given below:

Month	(TCO_2/Month)
Jan-07	2550
Feb-07	2028
Mar-07	2339
Apr-07	1116
May-07	185
Jun-07	1403
Jul-07	1303
Aug-07	915
Sep-07	2139
Oct-07	2406
Nov-07	2578
Dec.-07	2758
Total	**21720**

Measures to ensure the Results / uncertainty analysis

- The calibration of monitoring equipment is being maintained as per the ISO requirement and the same is being done regularly. Steam Generation, fuel consumption are all other project parameters being recorded shift-wise and the same is being verified by the responsible authorities mentioned in ISO procedure.
- In line with the deviation approved by the EB (please refer to: http://cdm.unfccc.int/UserManagement/FileStorage/AM_CLAR_IHET23I2N9JZP6FJJE4PYH9BNRGBJC), the following procedures are followed in addition to the above:

- On those days in a month where the CO_2 removal in all the shifts of a day are not within the +/-5% range of rated capacity (the daily representative CO_2 removal, corresponding steam flow and hence SSCR of project will be zero in that case), the maximum of all the other days in that particular month has been considered for estimating the project SSCR for these days. This is considered acceptable given that for the majority of such occasions in the month, the SSCR of the project is zero, and using zero value (means no steam is consumed in project scenario) would have lead to higher values of the emission reductions. Hence, using the maximum values of project SSCR of other days in a month instead of the representative project SSCR will result in a conservative emission reduction estimate.
- On those days of the months where the CO_2 removal in all the shifts of all days are not within the +/-5% range of rated capacity (the daily representative CO_2 removal, corresponding steam flow and hence SSCR of project will be zero for all days in that month), the maximum of all the other months prior to the month in question, from the date of start of monitoring period, has been considered for estimating the project SSCR. This is considered acceptable given that for the majority of such occasions (months) in the monitoring period, the SSCR of the project is zero, and using zero value (means no steam is consumed in project scenario) would lead to higher values of the emission reductions. Hence, using the maximum values of project SSCR of all the other months prior to that month, from the date of start of monitoring period, instead of the representative project SSCR, will result in a conservative emission reduction estimate

Roles & Responsibilities

A CDM team (Under Technical cell) has been working in IGF for monitoring and verification of all the monitoring parameters as per the guidelines formulated by the management of Indo Gulf Fertilisers. Qualified and trained people monitor the parameters and emission reduction calculations. In the complete

implementation and monitoring Plan, IGF is the sole agency responsible for implementation and monitoring.