
VERIFICATION AND CERTIFICATION REPORT

GMR Industries Limited

**Methane recovery and power
generation in a distillery plant**

SGS Climate Change Programme

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Date of Issue:		Project Number:	
08/09/2008		CDM.VER0195	
Project Title:			
Methane recovery and power generation in a distillery plant			
Organisation:		Client:	
SGS United Kingdom Limited		GMR Industries Limited	
Publication of Monitoring Report:			
Monitoring Period:		01/04/2007 to 30/09/2007	
First Monitoring Version and Date:		Version 1.0 dated 15/10/2007	
Final Monitoring Version and Date:		Version 1.3 dated 14/07/2008	
Summary:			
<p>SGS United Kingdom Ltd has performed the periodic verification of the CDM project 'Methane recovery and power generation in a distillery plant' UNFCCC Ref. Number 505. The verification includes confirming the implementation of the monitoring plan of the registered PDD UNFCCC Reg. no 505 and the application of the monitoring methodology as per AMS IIIH, version 01 dated 03 March 2006 and I D version 08 dated 03 March, 2006. A site visit was conducted to verify the data submitted in the monitoring report.</p> <p>The GMR Industries Limited in the pre project activity treats its spent wash in open anaerobic lagoon before its discharge. But in open lagoon system Methane, a potent GHG, is generated due to the anaerobic conditions which escape into atmosphere and there is no control or capturing involved. This project activity from entails treatment of this high BOD/COD Spent-Wash an-aerobically in a closed digester and capturing the Methane generated in a controlled manner. The Methane captured is combusted in a boiler for steam generation and further to generate power through a turbo-generator.</p> <p>SGS confirms that the project is implemented in accordance with the validated and registered Project Design Document. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 9,550 tCO₂e during period 01/04/2007 up to 30/09/2007.</p>			
Subject:			
CDM Verification			
Verification Team:			
Pankaj Mohan – Lead Assessor		<input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit)	
Kaviraj Singh – Expert & Local Assessor			
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Date: 25/07/2008 Name: Sanjeev Kumar	Date: 11/07/2008 Name: Steve Ross		
Authorised Signatory:		<input type="checkbox"/> Unrestricted Distribution	
Name: Siddharth Yadav Date: 08/09/2008			
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CO ₂	Carbon Dioxide
COP/MOP	Conference of parties serving as the meeting of parties to Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
GHG	Green House Gas(es)
GMRIL	GMR Industries Limited
NIR	New Information Request
PDD	Project Design Document
PP	Project Proponent
UNFCCC	United Nations Framework Convention on Climate Change

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1. Introduction

1.1 Objective

SGS United Kingdom Ltd has been contracted by GMR Industries Limited to perform an independent verification of its CDM project Methane recover and power generation in a distillery plant. CDM projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Certified Emission Reductions (CERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The emissions report conforms with the requirements of the monitoring plan in the registered PDD and the approved methodology; and
- The data reported are complete and transparent.

1.2 Scope

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on the validated and registered project design document and the monitoring report. The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

SGS has, based on the recommendations in the Validation and Verification Manual, employed a risk-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Project Activity and Period Covered

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

Title of Project Activity:	Methane recovery and power generation in a distillery plant
UNFCCC Registration Number:	0505
Monitoring Period Covered in this Report	01/04/2007 to 30/09/2007
Project Participants	GMR Industries Limited
Location of the Project Activity:	Sankili/ Regidi Mandal/ Srikakulam/ Andhra Pradesh/ India.

The GMR Industries Limited in the pre project activity treats its spent wash in open anaerobic lagoon before its discharge. But in open lagoon system Methane, a potent GHG, is generated due to the anaerobic conditions which escape into atmosphere and there is no control or capturing involved. This project activity from entails treatment of this high BOD/COD Spent-Wash an-aerobically in a closed digester and capturing the Methane generated in a controlled manner. The Methane captured is combusted in a boiler for steam generation and further to generate power through a turbo-generator.

2. Methodology

2.1 General Approach

SGS's approach to the verification is a two-stage process.

In the first stage, SGS completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

At the end of this stage, SGS produced a Periodic Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

Using the Periodic Verification checklist, SGS verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the monitoring report. This verification report describes the findings of this assessment.

2.2 Verification Team for this Assessment

Name	Role	SGS Office
Pankaj Mohan	Lead Assessor	SGSIN
Kaviraj Singh	Local Assessor & Expert	SGSIN

2.3 Means of Verification

2.3.1 Review of Documentation

The validated PDD, the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in section 8 of this report.

2.3.2 Site Visits

As part of the verification, the following on-site inspections have been performed

Location: Sankili/ Regidi Mandal/ Srikakulam/ Andhra Pradesh/ India.	
Date: 17/10/2007	
Coverage:	Source of Information / Persons Interviewed
Management Approach to GHG commitment	Rao M.P., Manager, New projects
CDM monitoring & reporting documentation	Brijesh Kumar, Manager
Assessment of Project Boundary	Harshpreet Singh, Consultant
Quality Assurance – Management and operating system & Emergency procedures	Harshpreet Singh, Consultant

2.4 Reporting of Findings

As an outcome of the verification process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a New Information Request (NIR) specifying what additional information is required.

Where a non-conformance arises the team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- I. the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- II. the verification has identified misstatements in the reported emission reductions. Emission reductions with misstatements shall be discounted based on the verifiers ex-post determination of the achieved emission reductions

The verification process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

Corrective Action Requests and New Information Requests are detailed in Periodic Verification Checklist. The Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

2.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment Team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

3. Verification Findings

3.1 Project Documentation and Compliance with the Registered PDD

The project documentation compliance with the registered PDD version 1.3 dated 04/09/2006

3.2 Monitoring Results

Flow of spent wash in digester (M^3) is monitored continuously by online flow meter (SN 070437). The calibration (certificate reference number 07043/IFC011) was carried out by M/S Krohne Marshal Pvt. Ltd. on 16/03/2007. The continuous flow of spent wash is recorded from the totalizer display of flow meter. Every day the readings are recorded in the plant records. The present day reading minus the previous day reading gives the total readings for the total spent wash in a day. The final readings are transferred to spread sheet and then used for final emission reduction calculations. The plant records were cross checked against the reported values and found correct. CAR 05 was raised for explaining the reason why there was less or no flow of digester during the month of July and September? The distillery was closed in the month of July and Sept. because of rain and shut down in the plant on account of unavailability of raw material and hence there was no flow of spent wash to the digester. It was also checked from the plant records and found satisfactory so CAR05 was closed out.

COD of unsaturated spent wash into the digester (mg/lit) is measure once in a day. The sample is collected 10 am every day and COD is estimated immediately after that. The company follows the "Reflux Method" as given by "Central pollution Control Board", Minst. of Environment and Forest. The obtained readings are recorded in plant log sheet and then transferred to spread sheet. The reported values in the spread sheet were cross checked with the plant records and found satisfactory.

COD of the treated waste water from digester (mg/lit) was also analysed similar to the COD of unsaturated spent wash like; sampling once in a day following the once in a day following the protocols set by "Central pollution Control Board", Minst. of Environment and Forest, for COD estimation. No samples are stored before COD estimation.

Biogas flow into boiler (m^3) is monitored continuously by the online flow meter. The calibration for the meter (S. N. nl-s614-9462112) was done by Hi Tech Instrument & Control Systems on 14 -09-2006 and it was checked from the calibration test report number; HI/GMR/021 and found correct. But this meter was found faulty on a routine check and it was evident from the letter (dated 02/09/2007) of AM (ETP) who wrote to the AM (INST.) that the meter (serial number nl-s614-9462112) was failed and need to be replaced immediately. The new meter of ABB make (serial number; 05F0106) was installed at the same position. It was cross checked with the installation report (dated 27-09-2007) used for internal communication between ETP and instrumentation units of the plant. However no CER is claimed for this period because that time the CDM project activity was not in operation and it was cross check with the spread sheet of emission reduction calculations. CAR03 was raised to have the supportive document for the replacement of faulty flow meter and installation of new meters at the same position. The internal communication letters were provided, as discussed above, hence the CAR03 was closed out.

% CH_4 , Volumetric content of methane in biogas is analysed by using the Gas Chromatograph GC (model number 9800 SL No. 64). The GC was calibrated and calibration was carried out on 26/09/2006 by the instrument supplier M/S. Mayura analytical Pvt. Ltd. The samples of biogas are collected three times in a day and methane content is analysed immediately after the gas collection. The percentage of methane is recorded in the plant log sheet and then manually transferred to the spread sheet. The values of methane percentage used for calculations were verified from plant records and found correct.

The daily methane content data was analyzed statistically to check the 95% confidence level and it was found that among the sample size of 117 (the dates with methane % recorded as zero reading was not included in the analysis) only one (1) data for 10th June 2007 is falling outside $\pm 2SD$ (where SD – standard deviation value). The table below mentions the final results of the statistical analysis conducted for the daily methane content data.

Standard Deviation	0.61
Mean	62.24
2SD	1.22
Mean+2SD	63.45
Mean-2SD	61.02
Minimum data value	60.96
Maximum data value	63.40

The detailed statistical analysis was shown in the excel sheet used for emission reduction calculation which was submitted with this report. Thus based on the statistical analysis it can be verified that the periodical values of daily methane content obtained through Gas Chromatograph are having the 95% confidence level and hence meeting the methodology requirement regarding the 95% confidence level.

Apart from the statistical analysis the confidence level was also checked by getting the sample tested during the site visit. This gives verifier a confidence that the values verified were consistent and within 95% confidence level as required by the methodology.

Pressure of biogas (mm, WC) is recorded by pressure gauge (SS316) and the display reading in the monitor of meter is recorded in the plant records every hour. The pressure of biogas is monitored in mm, wc and these values are recorded in spread sheet as such then these values are converted into the kg/cm². The calibration was carried out on 23/02/2007 by 'Electronics Test and Development Centre'. The issued certificate (1399 E/2K6-2K7) was checked and found correct.

Temperature of biogas (°C) is recorded by temperature gauge installed online. Two different temperature gauges were used in this monitoring period as the existing one was found faulty and the serial number of both the gauge are recorded as: 6005 and HT05019140. The old temperature gauges were calibrated on 21/02/2007 and it was checked from the calibration certificate number: GIDL/SD/DPRO/INS/F-08. This meter was found faulty on 12/09/2007 during the routine check in the industry. It was checked from the internal communication letter given wrote to AM (INST) from AM (ETP) for the replacement of temperature gauge. In response to this letter the new meter (SN. HT05019140, make: NAGMAN-APECS) was installed on the same position. This was again confirmed from the letter of AM (INST) who wrote to AM (ETP) that the meter was replaced at the same position. The new meter was calibration on 11/09/2007 and the calibration certificate (008/ Deepthi Sai Enterprises) of the new meter was checked and found satisfactory. Moreover, when the meter was found faulty the CDM project activity was not in operation and no emission reduction is claimed for this period. The temperature of biogas is recorded every hour in plant log sheet and then transferred manually into the spread sheet. The final sheet is also cross checked with the plant records before use in the final emission reduction calculations. The reported values of temperature were cross checked from the plant records and found correct. CAR03 was raised to have the supportive document for the replacement of faulty temperature gauge and installation of new meters at the same position. The internal communication letters were provided hence the CAR03 was closed out.

Gross electricity generated in the power plant (kWh) is monitored by the energy meter (IK030981). The calibration of meter was carried out by 21/09/2006 by 'Elystec Engineers and Consultant Pvt Ltd'. This was checked from the calibration certificate EE/TR/UR/47/06 8 of 24. The totalizer display values are recorded in plant log sheet. The present day reading minus the present day reading gives the final consumption of electricity in a day. The arrived figure is then transferred to the spread sheet.

Auxiliary electricity consumption (kWh) is monitored by three different energy meter installed for monitoring the electricity consumption in coal handling (IK030974), ESP (IK030971) and digester (IK030973). The calibrations of meters were carried out on 21/09/2006 by Elystec Engineers and Consultant Pvt Ltd. This was checked from the calibration certificate EE/TR/UR/47/06 2, 3, 5 of 24. The totalizer display values are recorded in plant log sheet for every meter. The present day reading minus the present day reading gives the final consumption of electricity in a day and then arrived figures are transferred to the spread sheet. The reported values were cross checked from the plant records and found that some values are not in symmetry between log books and spread sheet so CAR01 was raised. The values were corrected in the spread sheet hence the raised CAR01 was closed out.

Net electricity generation (kWh) is a calculated value based on the monitored values of total electricity generation and total auxiliary consumption. The serial number of meters are recorded as; IK030971, IK030974, IK030981 and IK030973. The calibration certificates for these meters were checked, as discussed above. The values of gross electricity generation and total auxiliary consumption are recorded in spread sheet and then the net electricity generation is calculated by subtracting the values of auxiliary from the gross electricity generation.

Quantity of fossil fuel 'i' combusted in boiler is weighted by weigh bridge, installed in the plant premises. The weight bridge is calibrated by the state government as per the legal requirement for sugar industries. The last calibration was done on 28/03/2008 by the Office of the Controller of the Legal Metrology. The calibration certificate (reference number: 0970117) was checked and found correct. The total quantity of fossil fuel consumption is recorded in weighment register every time when coal is consumed in boiler. These values are summarized every month in coal reconciliation report then transferred to spread sheet for emission reduction calculations. The reported values were cross checked with the plant records and some mismatches were found in the reported values for the month of July so CAR02 was raised. In response to this the values were corrected in MR version 1.3 dated 14/07/2008 and are in line to the actual values of fossil fuel (coal) consumption recorded in plant log sheet. Hence CAR02 was closed out.

Gross electricity generated in the power plant (kWh) is monitored by the energy meter (IK030981). The calibration of meter was carried out by 21/09/2006 by 'Elystec Engineers and Consultant Pvt Ltd'. This was checked from the calibration certificate EE/TR/UR/47/06 5 of 24. The totalizer display values are recorded in plant log sheet. The present day reading minus the present day reading gives the final consumption of electricity in a day. The arrived figure is then transferred to the spread sheet.

Quantity of digested solid residue generated (tonnes) is recorded when ever generated but during this monitoring period no solid residue was generated from the digester. It was checked from the plant records and found satisfactory.

Quantity of digested solid residue treated in composting (tonnes) is recorded when ever generated and treated in the composting facility but no solid residue was generated from the digester in this monitoring period. It was checked from the plant records and found satisfactory.

Quantity of biomass residue combusted in boiler for power and steam generation (tonnes) is monitored by the purchase invoices as these are archived in the plant records every time biomass comes in. The biomass consumption is also recorded in the plant records from the biomass purchase invoices. However, the biomass consumption has not been considered anywhere in the emission reduction calculations being a carbon neutral fuel. CAR 05, as raised above, also required a clarification why the parameter ID 1.17 i.e. quantity of biomass residue combusted in boiler was not included in the monitoring plan. In response to this the MR Version 1.3 mentions this parameter (ID.1.17) and this is in line to the revised monitoring plan. So raised CAR05 was closed out.

3.3 Remaining Issues, CAR's, FAR's from Previous Validation or Verification

There are no remaining CAR's/ FAR's pending from the previous verification. However, at the time of first verification, the project activity was asked for a review by RIT (<http://cdm.unfccc.int/Projects/DB/SGS-UKL1152270393.27/iProcess/SGS-UKL1181656390.6/view>). The project participant and DOE was asked to submit a request for revision in Monitoring Plan by EB 35 para 82g prior to the next request for issuance. In response to this, a revision in registered Monitoring Plan was submitted, which was accepted (<http://cdm.unfccc.int/Projects/DB/SGS-UKL1152270393.27/MonitoringPlanRevisions/01/RevisedMonitoringPlan>). The CER for first verification was successfully issued on 30 Jan, 2008. The revised monitoring plan (approved by EB) was followed for this monitoring period as well.

3.4 Project Implementation

Project was implemented and equipment installed as described in the registered PDD;

The project activity was commissioned on 01/10/2006 and registered with CDM EB on 29 September 2006.

3.5 Completeness of Monitoring

The reporting procedures reflect the content of the monitoring plan. The monitoring mechanism is effective and reliable

3.6 Accuracy of Emission Reduction Calculations

The calculation of emission reductions is found to be correct. CAR04 was raised to have the justification why the project emission on account of dissolve methane content in treated waste water ($P_{y, \text{dissolve}}$) was not considered in emission reduction calculation. Responding to this, project emission was considered in the revised Monitoring Report Version 1.3 dated 14/07/2008 and hence the CAR04 was closed out. The details of the reported and the verified values for all parameters are listed in section 4.

3.7 Quality of Evidence to Determine Emission Reductions

Critical parameters used for the determination of the Emission Reductions are discussed above in section 3.2 above. All the data recorded is in compliance with the monitoring report.

3.8 Management System and Quality Assurance

The company involved in the project have ISO 9001:2000, and ISO14001:2004 quality assurance system implemented, therefore we can affirm that the management system the CDM project is in place; with the responsibilities properly identified and in place.

In order to verify data quality, the Company involves in the project works in accordance with a quality assurance procedure (*Procedure for Monitoring Plan Implementation*), which establishes the operational and management structure implemented.

3.9 Data from External Sources

Calorific values of fossil fuel combusted is considered the IPCC default values for coal. The reported and used value (4514 kcal/kg) was cross checked with the IPCC Default value, 2006 IPCC Guidelines for National Greenhouse Gas Inventories and found correct.

Coefficient of emission for fossil fuel i combusted in boiler ($\text{tCO}_2/\text{tonne}$) is taken the IPCC default values. This value (1.78 $\text{tCO}_2/\text{tonne}$) was checked from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and found correct.

4. Calculation of Emission Reductions

<i>Parameter</i>	<i>Reported Value</i>	<i>Verified Value</i>
Flow of spent wash in digester (m ³)		
April	12081	12081
May	12894	12894
June	10861	10861
July	3030	3030
Aug	5954	5954
Sept	00	00
Biogas flow into boiler (m ³)		
April	518749	518749
May	559394	559394
June	486970	486970
July	100707	100707
Aug	188416	188416
Sept	0	0
Net power generation (kWh)		
April	382426	382426
May	347507	347507
June	190263	190263
July	49695	49695
Aug	161420	161420
Sept	00	00
Fossil fuel consumption (tonne)		
April	798.9	798.9
May	311.4	89.1
June	71.2	71.2
July	115.7	115.7
Aug	1181.5	1181.5
Sept	00	00

Total emission reduction = 9,550 tCO₂e

5. Recommendations for Changes in the Monitoring Plan

A revision in registered Monitoring Plan was submitted, which was accepted by CDM EB and present on project page of UNFCCC website. The website <http://cdm.unfccc.int/Projects/DB/SGS-UKL1152270393.27/MonitoringPlanRevisions/01/RevisedMonitoringPlan> was checked and found to be in order..

6. Overview of Results

Assessment Against the Provisions of Decision 17/CP.7:

Is the project documentation in accordance with the requirements of the registered PDD and relevant provision of decision 17/CP.7, EB decisions and guidance and the COP/MOP?

Yes. The results of the compliance assessment are recorded in the verification checklist which is used as an internal report only.

Have on-site inspections been performed that may comprise, inter alia, a review of performance records, interviews with project participants and local stakeholders, collection of measurements, observations of established practices and testing of the accuracy of monitoring equipment?

Yes. Kaviraj Singh visited the sites and undertook interviews, collected data, audited the implementation of procedures, checked calibration certificates and checked data, inter alia.

The results of the site visits are recorded in the verification checklist which is used as an internal report only.

The evidences have been checked and collected. The revised monitoring report is attached with this verification report.

Has data from additional sources been used? If yes, please detail the source and significance.

Calorific values of fossil fuel combusted, is considered the IPCC default values for coal. The reported and used value (4514 kcal/kg) was cross checked with the IPCC Default value, 2006 IPCC Guidelines for National Greenhouse Gas Inventories and found correct.

Coefficient of emission for fossil fuel i combusted in boiler (tCO₂/tonne) is taken the IPCC default values. This value (1.78 tCO₂/tonne) was checked from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and found correct.

Please review the monitoring results and verify that the monitoring methodologies for the estimation of reductions in anthropogenic emissions by sources have been applied correctly and their documentation is complete and transparent.

Yes. The monitoring methodology has been correctly applied and the monitoring report and supporting references are complete and transparent.

Have any recommendations for changes to the monitoring methodology for any future crediting period been issued to the project participant?

No,

Determine the reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the CDM project activity, based on the data and information using calculation procedures consistent with those contained in the registered project design document and the monitoring plan.

The data used in anthropogenic emission reduction calculation is consistent with those contained in the registered PDD and monitoring plan. The emission reduction was 22,364 tCO₂ for the period 01/04/2007 to 30/09/2007 as per the estimation made in the registered PDD. The actual emission reduction has been verified as 9,550 tCO₂ for the same period.

Identify and inform the project participants of any concerns related to the conformity of the actual project activity and its operation with the registered project design document. Project participants shall address the concerns and supply relevant additional information.

No such non conformity of the actual project activity and its operation with the registered project design document has been observed."



Post monitoring report on UNFCCC website

*Yes, the monitoring report is available at ref. UNFCCC Project Reference Number
0505 on UNFCCC website*

<http://cdm.unfccc.int/Projects/DB/SGS-UKL1152270393.27/view>

7. Verification and Certification Statement

SGS United Kingdom Ltd has been contracted by GMR Industries Limited to perform the verification of the emission reductions reported for the CDM project Methane recovery and power generation in a distillery plant UNFCCC Reference Number 0505 in the period 01/04/2007 to 30/09/2007.

The verification is based on the validated and registered project design document and the monitoring report for this project. Verification is performed in accordance with section I of Decision 3/CMP.1, and relevant decisions of the CDM EB and CoP/MoP. The scope of this engagement covers the verification and certification of greenhouse gas emission reductions generated by the above project during the above mentioned period, as reported in Methane recovery and power generation in a distillery plant, dated 14/07/2008 Version 1.3.

The management of the GMR Industries Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project Monitoring Report version 1.3 dated 14/07/2008. Calculation and determination of GHG emission reductions from the project is the responsibility of the management of the Methane recovery and power generation in a distillery plant. The development and maintenance of records and reporting procedures are in accordance with the monitoring report.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period 01/04/2007 to 30/09/2007 based on the reported emission reductions in the Monitoring Report version 1.3 dated 14/07/2008 for the same period.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, SGS planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

SGS confirms that the project is implemented as described in the validated and registered project design documents. Based on the information we have seen and evaluated, we confirm the following:

Project Title:	Methane recovery and power generation in a distillery plant
UNFCCC Reference Number:	0505
Registered PDD and Approved Used for Verification:	1.3 dated 04/09/2006
Methodology Used for Verification:	IIH version 01 dated 03 March 2006 ID version 08 dated 03 March 2006
Applicable Period:	01/04/2007 to 30/09/2007
Total GHG Emission Reductions Verified:	9,550 t CO ₂ e

Signed on behalf of the Verification Body by Authorized Signatory



Signature:

Name: Siddharth Yadav

Date: 08/09/2008

8. Document References

- /1/ Registered PDD version 1.3
- /2/ Monitoring report version 1.3 dated 14/07/2008
- /3/ Monitoring report version 1.2 dated 26/05/2008
- /4/ Monitoring report version 1.1 dated 03/07/2008
- /5/ Monitoring report version 1.0 dated 15/10/2007
- /6/ Methodology IIIH version 01, 03 March 2006
- /7/ Methodology ID version 08 dated 03 March 2006
- /8/ Calibration certificates of monitoring meters
- /9/ ISO certificates: 9001-2000 (Cert. number: 3539, 06/28/2006), 1401-2004 (Cert. number: 7065, dated 08/28/2006),
- /10/ Monitoring report version 1.4 dated 05/09/2008
- /11/ Revised CER calculation Spread sheet

- o0o -