
VERIFICATION REPORT

BIOVET JSC

**CO-GENERATION GAS POWER
STATION BIOVET**

Peshtera, Bulgaria

Monitoring Period
01/01/2008 - 31/12/2008

(Third period)

SGS Climate Change Programme

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Project Title	Organisational Unit:
Co-Generation Gas Power Station Biovet	SGS United Kingdom Limited
Revision Number	Client:
02	Biovet JSC

Summary:

SGS United Kingdom Ltd has performed the annual verification of the JI project Co-Generation Gas Power Station Biovet. The verification includes confirming the implementation of the monitoring plan of the validated PDD. A site visit was conducted to verify the data submitted in the monitoring report.

The project entails the design, establishment and operation of a high efficiency Gas Power Plant of a co-generation type and power capacity of approximately 18 MW. The power plant produces electric energy and industrial steam to cover the needs of Biovet JSC.

The start of the project was April 2004, operation started 26/11/2005.

SGS confirms that the project is implemented in accordance with the validated and validated 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 validated 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 62,573 tCO₂e during period 01/01/2008 up to 31/12/2008.

Subject:		
JI project Verification		Indexing terms
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VERIFICATION REPORT BIOVET JSC CO-GENERATION GAS POWER STATION BIOVET Peshtera, Bulgaria Monitoring Period 01/01/2008 - 31/12/2008		
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Siddharth Yadav 22 nd July 2009		<input type="checkbox"/> Limited distribution
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Abbreviations

BB	Back-up Boiler
CAR	Corrective Action Request
CHP	Co-generation Gas Power Station
JI	Joint Implementation
LHV	Lower Heating Value
MR	Monitoring Report
NG	Natural Gas
NIR	New Information Request
PDD	Project Design Document
UHV	Upper Heating Value

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1. Introduction

1.1 Objective

SGS United Kingdom Ltd has been contracted by Biovet JSC to perform an independent verification of its JI project Co-Generation Gas Power Station Biovet. JI projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Emission Reductions Units (ERUs).

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 validated 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 validated project design document and the monitoring report. The project is assessed against the requirements of Article 6 of the Kyoto Protocol, the JI Guidelines (Para 33) and further relevant requirements by the COP/MOP or the JISC.

SGS has, based on the recommendations in the Validation and Verification Manual, and 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:	Co-Generation Gas Power Station Biovet
SGS Project No:	No. JI.Ver0037
Monitoring Period Covered in this Report	01/01/08 to 31/12/08
Project Participants	BIOVET JSC, Bulgaria SenterNovem Netherlands
Location of the Project Activity:	39, Petar Rakov Str, 4550, Peshtera, Bulgaria

The project entails the design, establishment and operation of a high efficiency Gas Power Plant of a co-generation type and power capacity of approximately 18 MW. The power plant produces electric energy and industrial steam to cover the needs of Biovet JSC. Its power and steam production replaces former power taken from the national grid and steam formerly produced in separate boilers within Biovet. The latter now essentially serve as back-up boilers.

The start of the project was April 2004, operation started 26/11/2005.

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
Dr. Jochen Gross	Lead Assessor	SGS Germany GmbH
Dr. Wolfgang Ulrici	Trainee Lead Assessor	SGS Germany GmbH
Eng. Hristo Tanev	Assessor	SGS Bulgaria Ltd.

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: Peshtera, Bulgaria	
Date: 16/04/2009	
Coverage	Source of information / Persons interviewed
Review of Monitoring Report 2008 rev0 and underlying data	Monitoring Report 2008 rev0 with spreadsheets
Interviews with project participants	Jordan Jordanov, Chief of Co-Gen Plant

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 Validated PDD

Being Track 1, the project is not registered with JISC. The 3rd monitoring report rev 0 covering the period from 01/01/2008 to 31/12/2008 (Ref 3) was not in line with the validated PDD, as Biovet had introduced some modifications in the baseline calculations aiming at improving the precision of the data. They were to replace, for the calculation of CO₂ emissions from electricity imported from the national grid, the grid emission factor by the more favourable emission factor for electricity generated by the CHP plant whenever the CHP plant was working and simultaneously exporting electricity into the grid. This reasoning being technically wrong, Biovet was requested, by **CAR #1** to return to PDD procedures. The MR rev 0 was accordingly corrected to MR rev 2 (Ref 5) which now was in line with the validated PDD, and **CAR #1 was closed out**. The parameters mentioned in the corresponding monitoring plan are described in the PDD.

However, by means of a control calculation, it was found that there still were some inconsistencies in the calculations (NIR #9), and Biovet was asked to look for the source, by e-mail of 14/05/2009 (Ref19). It took some lengthy considerations in various directions and finally an in-depth analysis (CAR #10, cf. our e-mail of 17/06/2009) (Ref 20) to track it down. It turned out that two formulas of the PDD were valid only in a special case and not applicable to Biovet's general case.

Basically, the issue is that for calculating the amount of NG needed to produce steam of the same energy content as the steam produced by the CHP, in the baseline calculations, the BB efficiency had been used in the PDD. However, the BB starts heat-up with water of an elevated temperature of 60 deg C. Thus, the energy content of the steam produced by the BB is higher than the energy needed to heat the water up to produce that steam. Therefore, this approach overestimates the amount of NG, and so the amount of emission reductions. The proper way of reversely determining the amount of NG needed to produce the CHP-delivered steam energy is via the BB steam energy content coefficient which is defined as steam energy content divided by NG heat content.

To find the source for the problem **NIR #9 was raised**. To ensure corrections of the wrong formula **CAR #10 was raised**. The response by the PP in the form of a revised MR rev 5 (Rev 9) follows this approach and **NIR #9 as well as CAR #10 were closed out**.

3.2 Monitoring Results

General Remarks

1. Actually, there still are no official Bulgarian factors for electricity generation emissions and grid losses available for the year 2008, as mentioned in the MR rev 0 (Ref 3, p. 15) Therefore, the conservative approach used in the previous Verification Reports for the periods of 01/12/2005 to 31/12/2006 and 01/01/2007 to 31/12/2007 was used again, which applied the more conservative factor estimates for Bulgaria (/21/), as issued by the Dutch Ministry of Economic Affairs in 2003 /21/, which were applied in the PDD by the Dutch project developers. However, **CAR #7 was raised** requesting Biovet to remove the discussion of the unapproved Bulgarian emission factors from the monitoring report because of the risk of misunderstandings. This being done, **CAR #7 was closed out**.

2. Whereas in the first verification, the calibration status of all the measuring instruments was still valid as confirmed by accredited institutions on behalf of the manufacturers, these meters were re-calibrated in 2007 by Biovet's in-house Metrology Department. This department is not certified according to ISO17025 or similar.

Either certification/accreditation of the Metrology Department or, optionally, supervision by an accredited body or competent Bulgarian authority or, eventually, direct re-calibration by competent bodies was requested in our Verification Report of 07/07/2008.

As competent supervision bodies apparently weren't available, Biovet chose to have competent bodies re-calibrate the instruments. BB steam meters not being calibrated by a competent body, as indicated by Annex 3, **NIR #3 was raised**. Upon Biovet's proof that they were calibrated, indeed, by the competent Unisyst laboratories on 18/03/2009, **NIR #3 was closed out**, as the 2008 calibration had been made by Biovet's in-house Metrology

Department which is experienced but not certified, before verification of the MR 2007 (Ref 13), and the corresponding **closed-out CAR #3** of the Verification Report 2007 (Ref 2) had been observed in 2009, indeed.

3. All raw data used in the calculation sheets (Ref 4) were checked for transcription errors. Some discrepancies were found in the NG consumption figures (Ref 12) due to rounding errors (**CAR #2 was raised**). Upon correction (Ref 6) and re-check of the figures, **CAR #2 was closed out**.

Volume of NG consumed by the CHP [1,000 Nm³]

The data from Biovet's gas flow meters (including the meter for the co-gen plant) are collected on the first day of every month and cross-checked with those provided by the NG supplier, Bulgargas.

Year	NG Consumption, Reported value [1,000 Nm ³]	NG Consumption, Verified value [1,000 Nm ³]
2008	44,751	44,751

Co-generation electricity production [MWh_e]

Co-generation electricity production is recorded in the Electrical Substation "Biovet". Generator electrical energy is cross-checked with National Electricity Company NEC and in-plant consumption counters.

Year	Co-Gen Electricity Production, Reported value [MWh _e]	Co-Gen Electricity Production, Verified value [MWh _e]
2008	141,698	141,698

Electricity exported to the national power grid [MWh_e]

It was found that electricity exported to the national grid in 2008 was approx. 9 % less than in 2007 (NIR #6). The plausible reason is that Biovet ran the CHP to provide the steam needed by Biovet, rather than maximizing electricity generation. With this information, NIR #6 was closed out.

Year	Exchange Electricity to Power Grid, Reported value [MWh _e]	Exchange Electricity to Power Grid, Verified value [MWh _e]
2008	138,544	138,544

Electricity imported from the national power grid (MWh_e)

The electricity imported from the grid is monitored continuously.

It was found that electricity imported from the national grid in 2008 was approx. 15 % less than 2007 (**NIR #5 was raised**). Biovet explained that in the last quarter 2007, the company joined in the Bulgarian free electricity market, one result being a strict schedule for Biovet's electrical consumption. This appeared plausible because of the company's interest to curb consumption costs wherever possible. Thus, **NIR #5 is closed out**.

Year	Imported Electricity, Reported value [MWh _e]	Imported Electricity, Verified value [MWh _e]
2008	89,924	89,924
Year	Co-Gen Electricity Production, Reported value [MWh _e]	Co-Gen Electricity Production, Verified value [MWh _e]
2008	141,698	141,698

Electricity exported to the national power grid [MWh_e]

It was found that electricity exported to the national grid in 2008 was approx. 9% less than in 2007 (**NIR #6 was raised**). The plausible reason is that Biovet ran the CHP to provide the steam needed by Biovet, rather than maximizing electricity generation. With this information, **NIR #6 was closed out**.

Year	Exchange Electricity to Power Grid, Reported value [MWh _e]	Exchange Electricity to Power Grid, Verified value [MWh _e]
2008	138,544	138,544

Electricity imported from the national power grid (MWh_e)

The electricity imported from the grid is monitored continuously.

It was found that electricity imported from the national grid in 2008 was approx. 15 % less than 2007 (NIR #5 was raised). Biovet explained that in the last quarter 2007, the company joined in the Bulgarian free electricity market, one result being a strict schedule for Biovet's electrical consumption. This appeared plausible because of the company's interest to curb consumption costs wherever possible. Thus, **NIR #5 is closed out**.

Year	Imported Electricity, Reported value [MWh _e]	Imported Electricity, Verified value [MWh _e]
2008	89,924	89,924

Energy content of CHP Generated Steam [MWh_t]

The produced steam from the Heat Recovery Steam Generator HRSG is continuously monitored and recorded every first day of the month.

Year	Energy content of CHP Generated Steam, Reported value [MWh _t]	Enthalpy of Generated Steam, Verified value [MWh _t]
2008	186,951	186,951

Efficiency of existing boilers / BB energy content efficient [%]

The efficiency parameter was analyzed every month, the energy content coefficient once for 2008.

According to the PDD, the BB efficiency - defined as steam heat production divided by NG heat content - was used to later reversely determine the amount of NG necessary to produce the steam energy delivered by the CHP, by using the BB, in the baseline calculations. This approach mixes up heat production with steam energy content.

The BB starting heat-up with water of a temperature of 60 deg C, the energy content of the produced steam is higher than the energy needed to heat the water up to produce steam. Thus, by reversely determining the amount of NG needed to produce the steam energy delivered by the CHP by using the BB, the amount of NG is overestimated, and so is the amount of emission reductions. Consequently **CAR #10 was raised** to ensure a revision of the calculation. In response to CAR #10, the PP presented a revised MR rev 5. This revised report makes use of the proper way of reversely determining the amount of NG needed to produce the steam energy delivered by the CHP by using the BB is via the BB steam energy content coefficient which is defined as steam energy content divided by NG heat content.

This approach has been followed in MR re v5. In the following table, the BB efficiency is given for reference purposes; it is no longer used in the calculations, however. Consequently CAR 10 could be closed out.

Year	Average efficiency of back-up boilers / BB steam energy content coefficient Reported values [%]	Average efficiency of back-up boilers / BB steam energy content coefficient Verified values [%]
2008	88.1 / 97.52	88.1 / 97.52

Lower heating value of NG [kcal/Nm³]

Bulgargas provides monthly gas analyses together with an evaluation of the lower and upper heating values

Year	Weighted average lower heating value of NG, Reported value [kcal/Nm ³]	Weighted average lower heating value of NG, Verified value [kcal/Nm ³]
2008	8,029.53	8,029.53

Energy content of BB Generated Steam [MWh_t]

The steam flow produced by the BB is monitored continuously.

It was found that heat production from back-up boilers in 2008 was approx. 40 % less than 2007 (NIR #4 was raised). This was explained by a drastic reduction of working hours and a correspondingly higher steam production by the CHP. This information is consistent with the information given for NIR #6 (see above, Electricity exported to the national power grid), and **NIR #4 was closed out**.

Year	Energy content of BB Generated Steam, Reported value [MWh _t]	Energy content of BB Generated Steam, Verified value [MWh _t]
2008	7,148	7,148

Electricity exported to the national power grid [MWhe]

The electricity exported to the grid is monitored continuously.

Year	Exported Electricity, Reported value [MWhe]	Exported Electricity, Verified value [MWhe]
2008	138,544	138,544

Emissions Factors for Electricity Generation and Grid Losses

Cf. the general remarks above about determination of EF. The following highly conservative factors had to be used:

Year	Grid Emission Factor for Electricity Generation EF _{el} _{gen} [tCO ₂ /MWh]	Grid Emission Factor for Electricity Generation including Grid Losses BEF _{el} [tCO ₂ /MWh]
2008	0.761	0.890

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

There are no remaining issues from former verification.

3.4 Project Implementation

Project was implemented and equipment installed as described in the validated PDD and is fully operational.

3.5 Completeness of Monitoring

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

However, due to a glitch in the PDD formulas 5.2-1 and 6-9 which were repeated in the MR rev 0 and rev 2, sections 2.4 and 2.5, the back-up boiler efficiency had to be replaced by the BB energy content coefficient, as explained above (CAR #10). The correct formulas are given in the MR rev5, and **CAR #10 is closed out**.

The data needed for this, namely the energy content of the steam produced by the BB, has already been correctly monitored throughout the monitoring period.

3.6 Accuracy of Emission Reduction Calculations

The calculation of emission reductions had to be corrected due to the glitch in the PDD formulas 5.2-1 and 6-9 which were repeated in the MR rev 0 and rev 2, sections 2.4 and 2.5. The correct formulas are given in the MR rev 5, as explained above, and the accordingly revised calculations are correct.

We would like to mention that the use of upper heating values instead of lower heating values in determining boiler efficiency or BB energy content coefficient is physically preferable (CAR #8 was raised). However, the use of UHV leading only to enhanced calculation expense (due to later LHV/UHV correction when calculating CO₂ emissions from NG) without further consequences for the amount of emission reduction, use of LHV is admitted for the project calculations. Thus, CAR #8 is closed out.

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

Biovet holds ISO9001:2000 and ISO14001:2004 certificates, which were issued by SGS Bulgaria. We can affirm that the management system of the JI project is well in place. Roles and responsibilities were checked to be according to the organisation chart in validated PDD. Relevant staff members are trained and understand the PDD and its calculations, as verified during the site visit.

3.9 Data from External Sources

IPCC 2006 default values for the emission factor for combustion of NG and factor estimates for Bulgarian emissions from power generation and grid losses, as issued by the Dutch Ministry of Economic Affairs /21/ were used to calculate the amount of emission reductions. Further, enthalpies for steam generated were taken from pertinent technical literature (cf., e.g., www.spiraxsarco.com/resources/steam-tables/saturated-steam.asp).

4. Overview of Results

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?

The project is not registered. The results of the compliance assessment are recorded in the verification checklist which is used as an internal report only.

Yes. Eng. Hristo Tanev visited the site 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 (Ref 8) is attached with this verification report.

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

Yes. IPCC default values and values from acknowledged technical literature were used, please see section 3.9.

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 corrected monitoring methodology/plan has been correctly applied in MR rev5 and the monitoring report (MR rev5) 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?

Yes. Instead of monitoring the BB efficiency, the BB steam energy content coefficient will have to be monitored and applied in the calculations

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

The data used in anthropogenic emission reduction calculation is consistent with those contained in the validated and duly modified PDD and Monitoring Report 2008 rev5. The actual emission reduction has been verified as 62,573 tCO₂ for the same period.

The emission reduction was 74,000 tCO₂ for the period 01/01/2008 to 31/12/2008 as per the estimation made in the validated PDD. The difference is partly due to an overestimate of Biovet's electricity and heat consumption (approx. 7,500 tCO₂) and partly due to an inadequate approach in the validated PDD (approx. 4,000 tCO₂), as can be seen by comparing the different versions of the calculation sheets (Refs 4, 6, 9).

Identify and inform the project participants of any concerns related to the conformity of the actual project activity and its operation with the validated 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 validated project design document has been observed."

Post monitoring report on UNFCCC website

No, the MR rev0 was not published on the SGS or UNFCCC websites.

5. Calculation of Emission Reductions

The formulas in the following table for 2008 emission reductions are given in MR rev5 (Ref 8), p. 12 – 14.

Year	Baseline		Project Emission			Reduction
	CO2 emission (combustion)	CO2 emission (electricity from grid)	CO2 emission (combustion)	CO2 emission (el. from grid)	CO2 emission (el. to grid) (-)	Total CO2 emission reduction
	t/year	t/year	t/year	t/year	t/year	t/year
2008	40,197	82,840	85,864	80,033	105,432	62,573

6. Recommendations for Changes in the Monitoring Plan

No further recommendations

7. Verification Statement

SGS United Kingdom Ltd has been contracted by Biovet JSC to perform the verification of the emission reductions reported for the JI project Co-Generation Gas Power Station Biovet in the period of 01/01/2008 to 31/12/2008.

The verification is based on the validated 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 JI 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 the MONITORING REPORT 1st January – 31st December 2008 JI PROJECT CO-GENERATION GAS POWER STATION BIOVET, Revision 5 from 17/06/2009 (Ref 8).

The management of Biovet JSC is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions on the basis set out within the above-mentioned Monitoring Report. The development and maintenance of records and reporting procedures including the calculation and determination of GHG emission reductions from the project is the responsibility of the management of the JI project Co-Generation Gas Power Station Biovet. The records and reporting procedures are in accordance with the Monitoring Report rev 5,

It is our responsibility to express an independent GHG verification opinion on the GHG emissions from the project for the period of 01/01/2008 to 31/12/2008 and on the calculation of GHG emission reductions from the project for the period of 01/01/2008 to 31/12/2008 based on the reported emissions in the Monitoring Report revision 5 from 17/06/2009 (Ref 8) for the period of 01/01/2008 to 31/12/2008.

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 project design documents after applying due corrections to two calculation formulas. Based on the information we have seen and evaluated, we confirm the following:

Name and Reference Number of Project	Co-Generation Gas Power Station Biovet
Project Location and Country	Peshtera, Bulgaria
Validated PDD and Approved Methodology used for Verification	Co-Generation Gas Power Station Biovet; ACM0002 version 10
Applicable Period	01/01/2008 - 31/12/2008
Total GHG Emission Reductions Verified	62,573 t CO ₂

Signed on behalf of the Verification Body by Authorized Signatory



Signature:

Name: Siddharth Yadav

Date: 22nd July 2009

8. Document References

- /1/ Biovet PDD.pdf (Co-Generation Gas Power Station Biovet Design Document version 2, May 2004)
PDD
- /2/ UK AR6 JI.VER0037 07.07.2008.pdf (JI Project Biovet- VERIFICATION REPORT 20080707)
Verification Report for previous monitoring period UK AR6 JI.VER0037 07.07.2008.pdf
- /3/ JI Project Biovet- MONITORING REPORT 2008rev0.pdf (JI Project Biovet- MONITORING REPORT 2008 Rev. 0, 01/01 – 31/12/2008, February 2009)
report for actual monitoring period rev0
- /4/ Monitoring PDD- Biovet 2008 Neth.xls (Biovet calculation sheets for Monitoring Report 2008 rev.0)
Readings and calculations
- /5/ JI Project Biovet- MONITORING REPORT 2008rev2.pdf (JI Project Biovet- MONITORING REPORT 2008 Rev. 2, 01/01 – 31/12/2008, June 2009)
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- /6/ Monitoring PDD- Biovet 2008rev2 LHV.xls (Biovet calculation sheets for Monitoring Report 2008 rev.2)
Readings and calculations
- /7/ Mon.Rep.Biovet JI proj. 2008-Annex3.pdf (Monitoring Report 2008, Annex 3)
Calibration certificates for: NG meters, steam flow meters, electricity meters
- /8/ JI Project Biovet- MONITORING REPORT 2008rev5 090617.pdf (JI Project Biovet- MONITORING REPORT 2008 Rev. 5, 01/01 – 31/12/2008, 17/06/2009)
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- /14/ void
- /15/ UK NIR CAR JI Ver0037 Biovet 1-10.doc
signed by Ulrici (auditor) and Michev (Biovet Technical Director)
- /16/ Comments to NIR/CAR 1-10/10
Comments given by Jordanov (Biovet Chief of Co-Gen Plant) and Ulrici (trainee lead assessor)

- /17/ Attachment2.pdf
mentioned in Jodanov's information provided for NIR3
- /18/ Attachment1.pdf
mentioned in Jodanov's information provided for CAR2
- /19/ e-mail to Biovet 090514 - Monitoring calculations
inconsistencies found while doing control calculation which is displayed, asking for assistance
with identifying source of inconsistency
- /20/ e-mail to Biovet 090617 MR 2008 inconsistencies
Identification of source of inconsistency, display of physical reasoning
- /21/ Operational Guidelines for Project Design Document of JIP, Volume 2a – Revision 2.1, Ministry
of Economic Affairs of the Netherlands, June 2003

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