VERIFICATION REPORT

PUBLIC JOINT STOCK COMPANY "COLLIERY GROUP "POKROVSKE"

VERIFICATION OF THE

"CMM UTILISATION ON THE JOINT STOCK COMPANY "COAL COMPANY KRASNOARMEYSKAYA ZAPADNAYA NO 1 MINE"

4th periodic

REPORT NO. UKRAINE-VER/0466/2012

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-ver/0466/2012

VERIFICATION REPORT

Date of first issue: 01/11/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Public Joint Stock Company "Colliery Group "Pokrovske"	Client ref.: Petryshena Lyudmyla

Summary:

Bureau Veritas Certification has made the 4th periodic verification of the "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine", JI Registration Reference Number 0105, project of Public Joint Stock Company "Colliery Group "Pokrovske" located in Krasnoarmiysk city, Donetsk region, Ukraine, and applying the methodology ACM0008 version 03, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Action Requests, Forward Action Requests (CL, CAR and FAR), presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated accurately and without material errors, omissions, or misstatements, and the ERUs issued totalize 146008 tons of CO_2eq for the monitoring period from 01/11/2011 to 30/04/2012.

Our opinion relates to the project GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: UKRAINE-ver/0466/2012	Subject Group: JI	
Project title: "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine"		
Work carried out by: Team Leader, Lead Verifier: Svitlana Gariyenchyk Team Member, Lead Verifier: Juliia Pylnova Team Member, Lead Verifier: Vyacheslav Yeriomin		
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Nikolay Chekhmestrenko – Technical Specialist		
Work approved by: Ivan Sokolov - Operational Manager		
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1 INTRODUCTION

Public Joint Stock Company "Colliery Group "Pokrovske" has commissioned Bureau Veritas Certification (BVC) to verify the emissions reductions of its JI project "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine" (hereafter called "the project") at Krasnoarmiysk city, Donetsk region, Ukraine.

This report summarizes the findings of the verification of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and monitoring report, and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

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

1.3 Verification Team

The verification team consists of the following personnel:

Svitlana Gariyenchyk

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Juliia Pylnova
Bureau Veritas Certification Team Member, Climate Change Lead Verifier

Vyacheslav Yeriomin
Bureau Veritas Certification Team Member, Climate Change Lead Verifier

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

Nikolay Chekhmestrenko
Bureau Veritas Certification Technical Specialist

2 METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

The completed verification protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Monitoring Report (MR) submitted by Public Joint Stock Company “Colliery Group “Pokrovske” and additional background documents related to the project design, baseline, and monitoring plan, i.e. country Law, Project Design Document (PDD), Approved CDM methodology ACM0008 and Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report version 0 of 05/05/2012, version 1 of 14/06/2012, version 2 of16/07/2012, version 3 of 08/10/202, version 4 of 12/10/2012 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 14/05/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of "Colliery Group "Pokrovske", Eco-Alliance Ltd and Carbon TF B.V. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC "Colliery Group "Pokrovske"	Organizational structure Responsibilities and authorities Roles and responsibilities for data collection and processing Installation of equipment Data logging, archiving, and reporting Metering equipment control Metering record keeping system, database IT management Training of personnel Quality management procedures and technology Internal audits and check-ups
Consultant: Eco-Alliance Ltd Carbon TF B.V.	Baseline methodology Monitoring plan Revision to the monitoring plan Monitoring report Deviations from PDD

2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the GHG emission reduction calculation.

If the Verification Team, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should raise these issues and inform the project participants of these issues in the form of:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;

(b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;

(c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

The Verification Team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily resolve the issues raised, if any, and should conclude its findings of the verification.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

3 VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 24 Corrective Action Requests, 32 Clarification Requests, and 1Forward Action Request.

The number between brackets at the end of each section corresponds to the DVM paragraph.

3.1 Remaining issues and FARs from previous verifications

During the previous 3rd periodic verification conducted for the period of 01/04/2010 – 28/02/2011 by BVC one Forward Action Request was issued:

FAR01. The previous verification reports contain the information that monitoring activities including data collection procedures, QA & QC procedures are written down in the project Monitoring Manual. However, no such document was provided to BVC during site-visit, thus the issue is raised:

Please, provide for review the updated project Monitoring Manual, if available.

During the period of current verification the project participants haven't provided the updated Monitoring Manual requested by BVC as it is not currently available due to the ongoing works connected with the installation of the automated data control system at the cogeneration plant. As soon as the installation and putting into operation of the two remaining cogeneration units (#1 and #5) is completed, a new version of the Monitoring Manual will be issued.

The above mentioned Forward Action Request raised by BVC regarding this issue remains open pending the subsequent verification.

3.2 Project approval by Parties involved (90-91)

The project was approved by the host Party, Ukraine, which is confirmed by the Letter of Approval of Ministry for Environmental Protection of Ukraine No2239/11/10-08, issued on 22/02/2008. The written project approval by the Netherlands, the other Party involved, has been issued by the DFP of that Party when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest (Approval of voluntary participation in a Joint Implementation Project of the Ministry of Economic Affairs of the Netherlands, Ref. 2008JI02, dated 22/04/2008).

The abovementioned written approvals are unconditional.

3.3 Project implementation (92-93)

The present JI project implies utilization of CMM from two suction systems and from drainage wells on the surface of the «Colliery Group «Pokrovs'ke» (previously called Joint Stock Company "Coal Company "Krasnoarmeyskaya Zapadnaya № 1") for heat and power generation and for flaring.

CMM, which has been sucked out of the active coal mine «Colliery Group «Pokrovs'ke», has been previously utilised in a coal boiler, which has been upgraded with a CMM burning system and a flare. The methane has been burned to less harmful CO2.

The construction of the cogeneration station at the central shaft has been finished at the end of 2011.

At the moment of current verification the project has not been implemented as planned. The installation of the cogeneration station at the main shaft has been completed, the operation started at the end of October 2011. All six cogeneration units of the station were installed in time but in fact only four of them (units #2, 3, 4, 6) have been operational during the reported monitoring period.
The status of project activity implementation compared with the PDD is presented in the table below:

unit	**installation date (PDD)**	**firing capacity**	**planned installation new timetable**
Central Shaft			
upgraded boiler	Oct 2003	25 MW	October 2003
flare No: 1	Jan 2008	5 MW	1 Flare with 25 MW in October 2010
flare No: 3	Mar 2008	5 MW	Included above
cogeneration units #2,#3,#4,#6	Jul 2008	total of 48.8 MW	November 2011
Degassing wells			
flare/pump No: 2	Jan 2008	5 MW	2012
flare/pump No: 7	Apr 2008	5 MW	2012
Air Shaft № 2			
flares No: 4-6	Apr 2008	total of 15 MW	2012
cogeneration units	Jun-Oct 2008	total of 67.5 MW	2012
cogeneration units	Jan 2009	total of 30 MW	2012

It is evident from the table above, there is a delay in installation of most project components (flares at degassing wells, flares and cogeneration units at Air Shaft No.2) are caused by lack of funds and should follow in 2012.

No areas of concern as to project management were identified.

3.4 Compliance of the monitoring plan with the monitoring methodology (94-98)

The monitoring occurred in accordance with the revised monitoring plan described in Section 3.5 below.

For calculating the emission reductions, key factors, such as availability and amount of extracted coal gas, concentration of methane in the extracted gas and others, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account.

Data sources used for calculating emission reductions such as appropriately calibrated measuring devices; passports for monitoring equipment; data collecting, processing and storing Siemens SIMATIC PLC S7 system and Siemens WINCC programming software; the internet data base; a system for data collecting, archiving and sending to Internet, called Graphic Data Manager RSG 40 Memograph M; logbooks; IPCC guidelines; national rules and regulations; laboratory analyses are clearly identified, reliable and transparent.

Emission factors, such as CO2 emission factor for fuel used for captive power or heat; carbon emission factor for combusted methane; specific carbon dioxide non direct emissions factors for consumption of electricity generated by power stations of united energy system of Ukraine, including default emission factors, are taken from the recognized sources, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.
The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

No areas of concern as to compliance of the monitoring plan with the monitoring methodology were identified.

3.5 Revision of monitoring plan (99-100)

In the course of considered monitoring period (01/11/2011 – 30/04/2012) the original monitoring plan described in the registered PDD version 04 of 10/09/2008 was modified by the project participants. The project participants submitted for determination the Revised Monitoring Plan which was determined by BVC during current verification. Final version of the Revised Monitoring Plan, version 6d of 12/09/2011, contains detailed descriptions of all the changes introduced and appropriate justification for these changes. The modifications are as follows:

1. The new value for specific carbon dioxide non direct emissions factors for consumption of electricity generated by power stations of united energy system of Ukraine (1,063 tCO_2/kWh instead of 0,666 tCO_2/kWh used in the previous monitoring periods) was applied in accordance with official Ukrainian data published on 12/05/2011 by the National Environmental Investment Agency of Ukraine.

2. New source for CO_2 emission factor of fuel used for captive power or heat was taken. The factor is now calculated using the value for "Other Bituminous Coal" of 25.87 t C/TJ from "National Inventory Report of Anthropogenic Emissions from Sources and Absorption by Absorbers of Greenhouse Gases in Ukraine for 1990-2009"

3. As far as in the current monitoring period the cogeneration units were put into operation, the parameter MM_{ELEC} (methane sent to power plant) was included and calculated according to the formula:

$$MM_{ELEC} = \frac{GEN_{CHP}}{Eff_{CHP} \times HV_{CH4}}$$

Respectively, for calculating MM_{ELEC} the parameter Eff_{CHP} was introduced. It was taken from the passports of the cogeneration units and was set at 39% for the 50% load of the cogeneration units according to their passports. This parameter was added to the list of parameters presented in Table-6 of the MR Section B.2.1. The description of the parameter is given in Annex 4 of the MR

4. Table 4 of the MR Section B.1 comprising the project monitoring equipment was amended with the list of the monitoring equipment for the cogeneration units #2, #3, #4 and #6 (cells from 18 to 67) that have been put into operation and included respectively in the project activity during the current monitoring period. It was evidenced by the verification group during the site visit that all monitoring equipment at the cogeneration plant is in place, timely calibrated and properly maintained.

5. The automatically data acquisition system was not working for the cogeneration units until 13/03/2012, so that no reasonable electronically data for power production and methane amount consumed by the units are available. For this period manually recorded data from the journal have been taken for the power production since 01/01/2012.
The handwritten data are excepted their quality for the appropriate period was demonstrated and the data were conservatively considered in the calculations by considering the potential errors

Based on above mentioned, BVC can conclude that the proposed revision of the monitoring plan improves the accuracy and applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

The identified areas of concern as to revision of monitoring plan, project participants response and BVC's conclusion are described in Appendix A Table 2 (refer to CL 08, CL 18, CL 32, CAR 24).

3.6 Data management (101)

The data and their sources provided in Section B.2. of the monitoring report, are clearly identified, reliable and transparent. The list of data related to the current monitoring period includes:

- list of values fixed ex-ante (Table 6 of the MR Section B.2.1.);
- list of the applied variables that relate to the baseline and project emissions (Table 7 of the MR Section B.2.2.);
- list of GHG emission sources in the project scenario

  (Table 8 of the MR Section B.2.3.);
- list of GHG emission sources in the baseline scenario (Table 9 of the MR Section B.2.4.);
- data concerning the environmental impacts caused by the project activity and data (MR Section B.2.6.), and
- information on data processing and archiving.

The implementation of data collection procedures is in accordance with the PDD and revised monitoring plan, including the quality control and quality assurance procedures.
Two different data collection and processing systems are used for the upgraded boiler and flare unit. The data for the boiler are collected, processed and stored using a Siemens SIMATIC PLC S7 system and Siemens WINCC programming software. One time per hour the data are sent via GPS to an Internet-based Server data base. The data can be read any time from the internet data base by the authorized personnel. Eco-Alliance ensures regular back ups and archiving.
For the flare and the cogeneration units the equipment supplier Sinapse has provided a system for data collecting, archiving and sending to Internet, called Graphic Data Manager RSG 40 Memograph M. The data are stored in the memory of computer for 6 months. Every month coal mine personnel save the data into the flash memory and transfer it to Eco-Alliance.

Eco-Alliance together with coal mine personnel conduct periodic audits of the project monitoring process including service audits. The regular back-up is performed for the monitoring data.

For plausibility checks and potential data back up the monitored data are logged in the hand written journals of the suction system.
The monitoring activities including data collection procedures, the quality control and the quality assurance procedures are written down in the project Monitoring Manual that was to be updated with the start of the cogeneration plant operation by the end of the year 2011. As far as two of six cogeneration units have not been regularly operating during the

current monitoring period the Monitoring Manual has not been updated either. This issue (FAR 01 in the verification protocol) is the subject to a check for the subsequent verification.

The function of the monitoring equipment, including its calibration status, is in order. The measurement equipment used for project monitoring is serviced, calibrated and maintained in accordance with the original manufacturer's instructions and industry standards; relevant records are kept as required.

The evidence and records used for the monitoring are maintained in a traceable manner. All necessary information for monitoring of GHGs emission reductions are stored in paper or/and electronic formats.

The data collection and management system for the project is in accordance with the PDD and revised monitoring plan.
The general project management is implemented by the Technical Director of the «Colliery Group «Pokrovske» through supervising and coordinating activities of his subordinates, such as the degasification engineer, heating technician, and safety engineering departments. The project management structure is presented in the MR section C.1.1.

Daily a group of mechanics and electricians who are responsible for the measures and maintenance of all technological equipment and measuring instruments are present on-site; during each of 12 hour-shift there is a person on-duty responsible for the proper operation and keeping of the journals. The general supervision of the monitoring system is executed by the administration of the coal mine under the existing control and reporting system.

The Monitoring Report provides sufficient information on the assigning roles, responsibilities and authorities for implementation and maintenance of monitoring procedures including control of data. The verification team confirms effectiveness of the existing management and operational systems and found them eligible for reliable project monitoring.

The identified areas of concern as to the data management, project participants response and BVC's conclusion are described in Appendix A Table 2 (refer to CAR 05, CAR 06, CAR 07, CAR 08, CAR 09, CL 17, CL 21, CL 27, CAR 20, CL 04, CAR 04, CL 05, CL15, CAR 10, CL 26, CAR 22, CAR 01, CL 01, CAR 02, CAR 03, CL 03, CAR 08, CL 06, CL07, CL 09, CL 10, CL 11, CL 12, CL 13, CL 14, CAR 11, CAR 12, CL 20, CL 22, CAR 13, CAR 14, CL 23, CL 24, CL 25, CAR 15, CL 28, CL 29, Car 21, CL 30, CL 31, CL 02, CL 16, CAR 16, CAR 17, CAR 18, CAR 19, CAR 23).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 4th periodic verification of the "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine" project in Ukraine, which applies the methodology ACM0008 version 03. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the monitoring report against the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of PJSC "Colliery Group "Pokrovske" is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring Plan as per determined changes. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 4 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

Reporting period: From 01/11/2011 to 31/12/2011

Baseline emissions	:	53133	tonnes of CO2 equivalent.
Project emissions	:	6381	tonnes of CO2 equivalent.
Emission Reductions	:	46752	tonnes of CO2 equivalent.

Reporting period: From 01/01/2012 to 30/04/2012

Baseline emissions	:	113240	tonnes of CO2 equivalent.
Project emissions	:	13984	tonnes of CO2 equivalent.
Emission Reductions	:	99256	tonnes of CO2 equivalent.

Total for the reporting period: From 01/11/2011 to 30/04/2012

Baseline emissions	:	166373	tonnes of CO2 equivalent.
Project emissions	:	20365	tonnes of CO2 equivalent.
Emission Reductions	:	146008	tonnes of CO2 equivalent.

5 REFERENCES

Category 1 Documents:
Documents provided by PJSC "Colliery Group "Pokrovske" that relate directly to the GHG components of the project.

/1/ Project Design Document of the project "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine", version 04 dated 10/09/2008
/2/ Monitoring Report for the period from 01/11/2011 till 30/04/2012 version 0 dated 05/05/2012
/3/ Monitoring Report for the period from 01/11/2011 till 30/04/2012 version 1 dated 14/06/2012
/4/ Monitoring Report for the period from 01/11/2011 till 30/04/2012 version 2 dated 16/07/2012
/5/ Monitoring Report for the period from 01/11/2011 till 30/04/2012 version 3 dated 08/10/2012
/6/ Monitoring Report for the period from 01/11/2011 till 30/04/2012 version 4 dated 12/10/2012
/7/ Revised Monitoring Plan version 6a of 14/06/2012
/8/ Revised Monitoring Plan version 6b of 09/07/2012
/9/ Revised Monitoring Plan version 6c of 02/10/2012
/10/ Revised Monitoring Plan version 6d of 12/10/2012
/11/ Calculation of Emission Reductions – excel file "ER-KAZ1-2011-11-01 to 2012-04-30_V1.xls", Version 1 of 14/06/2012
/12/ Calculation of Emission Reductions – excel file "ER-KAZ1-2011-11-01 to 2012-04-30_V1.xls", Version 1 of 16/07/2012
/13/ Calculation of Emission Reductions – excel file "ER-KAZ1-2011-11-01 to 2012-04-30_V1.xls", Version 1 of 08/10/2012
/14/ Approved consolidated baseline methodology ACM0008 version 03 "Consolidated baseline methodology for coal bed methane and coal mine methane capture and use for power (electrical or motive) and heat and/or destruction by flaring"
/15/ Approved consolidated baseline methodology ACM0008 version 05 "Consolidated baseline methodology for coal bed methane and coal mine methane capture and use for power (electrical or motive) and heat and/or destruction by flaring"
/16/ Methodological "Tool to determine project emissions from flaring gases containing methane"
/17/ Guidance on Criteria for Baseline Setting and Monitoring, version 03, JISC
/18/ Letter of Approval of Ministry for Environmental Protection of Ukraine No2239/11/10-08 issued on 22/02/2008.
/19/ Letter of Approval of the Ministry of Economic Affairs of the Netherlands, Ref. 2008JI02, dated 22/04/2008

Category 2 Documents:ackground documents related to the design and/or methodologies employed in the design or other reference documents.

/1/ Photo–Siemens Simatic Panel automatic control system
/2/ Logbook on methane utilization. Data for November 2011
/3/ Photo–beneficiation plant plate heat exchanger # 1 (group # 3)
/4/ Photo–Cogeneration Gas Piston Station
/5/ Photo–Synchronous Generator type DIG 140 k/4, serial # 8329570 A101
/6/ Photo–BVR.M flow calculation unit (section 216Б)
/7/ Photo–BVR.M flow calculation unit (section 222Б)
/8/ Photo–BVR.M flow calculation unit (section 215Б)
/9/ Photo–BVR.M flow calculation unit (section 221Б)
/10/ Photo–BVR.M flow calculation unit (section 212Б)
/11/ Photo–BVR.M flow calculation unit (section 218Б)
/12/ Photo–BVR.M flow calculation unit (section 214Б)
/13/ Photo–Synchronous Generator type DIG 140 L/4, serial # 8328231 B101
/14/ Photo–Synchronous Generator type DIG 140 L/4, serial # 8327669 B202
/15/ Photo–Jenbacher cogeneration unit type J620GSE01, serial # 4533461
/16/ Photo–Jenbacher cogeneration unit type J620GSE01, serial # 4934361
/17/ Photo–Jenbacher cogeneration unit type J620GSE73, serial # 5841541
/18/ Photo–Jenbacher cogeneration unit type J620GSE01, serial # 4590981
/19/ Photo–Measuring Transformer type MTM201D, serial # 3682
/20/ Photo–Measuring Transformer type MTM201D, serial # 3690
/21/ Photo–Measuring Transformer type MTM201DI, serial # 1768
/22/ Photo–Measuring Transformer type MTM201D, serial # 3688
/23/ Photo–Measuring Transformer type MTM201DI, serial # 1766
/24/ Photo–gas flow transmitter type DRG.M-10000, serial # 12059
/25/ Photo–Measuring Transformer type MTM201D, serial # 3682
/26/ Photo–Measuring Transformer type MTM201DI, serial # 1780
/27/ Photo–Measuring Transformer type MTM201DI, serial # 1771
/28/ Photo–Measuring Transformer type MTM201D, serial # 3681
/29/ Photo–Synchronous Generator type DIG 140 L/4, serial # 8327669 C102
/30/ Photo–Measuring Transformer type MTM201D, serial # 3692
/31/ Photo–Measuring Transformer type MTM201DI, serial # 1767
/32/ Photo–gas flow transmitter type DRG.M-10000, serial # 12059
/33/ Photo–Measuring Transformer type MTM201D, serial # 3683
/34/ Photo–gas flow transmitter type DRG.M-160, serial # 10567
/35/ Photo–Flare 1 type HOFGAS IFL4c 9000, № H 10244
/36/ Photo–Flare 1 control panel
/37/ Data on “Colliery Group “Pokrovs’ke” Cogeneration Station units operation for December 2011
/38/ Report on cogeneration unit operation # 4 for 31/12/2011
/39/ Report on cogeneration unit operation # 4 for 27/12/2011
/40/ Information on generation and consumption of electricity generated by the “Colliery Group “Pokrovs’ke” Cogeneration Station for 31/12/2012
/41/ Report on cogeneration unit operation # 6 for 31/01/2012
/42/ Report on cogeneration unit operation # 3 for 31/01/2012

/43/ Information on generation and consumption of electricity generated by the "Colliery Group "Pokrovs'ke" Cogeneration Station for 30/01/2012
/44/ Report on cogeneration unit operation # 3 for 30/01/2012
/45/ NGA-5 gas analyzer readings for 30/01/2012
/46/ Information on generation and consumption of electricity generated by the "Colliery Group "Pokrovs'ke" Cogeneration Station for 29/01/2012
/47/ Report on cogeneration unit operation # 6 for 29/01/2012
/48/ Report on cogeneration unit operation # 2 for 29/01/2012
/49/ Report on cogeneration unit operation # 3 for 28/01/2012
/50/ Report on electricity generation for February 2012
/51/ Report on electricity generation for January 2012
/52/ Report on electricity generation for March 2012
/53/ Report on electricity generation for April 2012
/54/ Statement on testing of gas piston module JMS 620 GS # 4590961 (station # 3) dated 27/02/2012
/55/ Statement on commissioning of aggregate type JMS 620 GS-S. LC, # J B623 Motor Nr. 3 (engine № 4590961)
/56/ Statement on testing of gas piston module JMS 620 GS # 5841541 (station # 6) dated 25/01/2012
/57/ Statement on commissioning of aggregate type JMS 620 GS-S. LC, # J F319 (engine № 5841541)
/58/ Statement on testing of gas piston module JMS 620 GS # 4934361 (station # 4) dated 04/01/2012
/59/ Statement on commissioning of aggregate type AVK TIG 142, # JD655 (engine № 4934361)
/60/ Statement on testing of gas piston module JMS 620 GS # 4533461 (station # 2) dated 19/03/2012
/61/ Report on cogeneration unit operation # 3 for 28/02/2012
/62/ Statement on acceptance-transmitting of electricity for February 2012
/63/ Information on generation and consumption of electricity generated by the "Colliery Group "Pokrovs'ke" Cogeneration Station for 29/02/2012
/64/ Statement on acceptance-transmitting of electricity for March 2012
/65/ Statement on acceptance-transmitting of electricity for April 2012
/66/ Statement on acceptance-transmitting of electricity for January 2011
/67/ Statement on acceptance-transmitting of electricity for December 2011
/68/ Statement on acceptance-transmitting of electricity for November 2011
/69/ Report on shut-down/launching of cogeneration module # 3 (fabrication # 4590981) for the period 04/02/2012-11/05/2012 as per DIA.NE.WIN recording database
/70/ Report on shut-down/launching of cogeneration module # 2 (fabrication # 4533481) for the period 01/12/2011-10/05/2012 as per DIA.NE.WIN recording database
/71/ Report on shut-down/launching of cogeneration module # 6 (fabrication # 5841531) for the period 01/12/2011-11/05/2012 as per DIA.NE.WIN recording database
/72/ Report on shut-down/launching of cogeneration module # 4 (fabrication # 4934371) for the period 25/01/2012-12/05/2012 as per DIA.NE.WIN recording

database

/73/ License # 578437 Series АГ, valid from 23/12/2011 to 22/12/2021, issued to PJSC “Colliery Group “Pokrovs’ke” by the National Commission on Regulation of Power Sector

/74/ Letter # 6811/27 dated 05/09/2011 from Donetsk branch of Regional Power Grid State Enterprise on allowing to conduct pre-commissioning of “Colliery Group “Pokrovs’ke” Cogeneration Station power equipment

/75/ Logbook on personnel training of HOFGAS IFL4c 9000 operation (“Colliery Group “Pokrovs’ke”)

/76/ List of personnel instructed on conducting monitoring (JMS 620 GS unit)

/77/ List of personnel instructed on conducting monitoring (HOFGAS IFL4c 9000 unit)

/78/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Oleksandr Tolstov by Synaps Private Scientific and Production Enterprise

/79/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Leonid Demianenko by Synaps Private Scientific and Production Enterprise

/80/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Vitalii Kumskov by Synaps Private Scientific and Production Enterprise

/81/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Vitalii Kumskov by Synaps Private Scientific and Production Enterprise

/82/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Oleksandr Korniienko by Synaps Private Scientific and Production Enterprise

/83/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Volodymyr Altukhov by Synaps Private Scientific and Production Enterprise

/84/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Mykola Burym by Synaps Private Scientific and Production Enterprise

/85/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Ihor Pereiaslovskyi by Synaps Private Scientific and Production Enterprise

/86/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Oleksandr Parasotchenko by Synaps Private Scientific and Production Enterprise

/87/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Volodymyr Maslov by Synaps Private Scientific and Production Enterprise

/88/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Oleksandr Nyna by Synaps Private Scientific and Production Enterprise

/89/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Roman Kasianenko by Synaps Private Scientific and

Production Enterprise

/90/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Serhii Hlushko by Synaps Private Scientific and Production Enterprise

/91/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Yevhenii Honcharov by Synaps Private Scientific and Production Enterprise

/92/ Certificate on training course: “GE Jenbacher modules operation” (08/08/2011-12/08/2011), issued to Artem Dmytryk by Synaps Private Scientific and Production Enterprise

/93/ Protocol # 229ка dated 03/01/2012 on commission session on health and safety knowledge testing

/94/ Protocol # 230ка dated 04/01/2012 on commission session on health and safety knowledge testing

/95/ Permit # 1118.11.30-10.10.1 on object operation commencement, valid from 24/03/2011 to 24/03/2014, issued by the State Committee of Ukraine on Health, Industrial Safety and Mining Control

/96/ Permit # 1117.11.30-10.10.1 on high risk works conduction continuation, valid from 24/03/2011 to 24/03/2016, issued by the State Committee of Ukraine on Health, Industrial Safety and Mining Control

/97/ Permit # 1819.11.14-10.10.1 on high risk equipment operation, valid from 21/10/2011 to 21/10/2016, issued by the State Committee of Ukraine on Health, Industrial Safety and Mining Control

/98/ Statement dated 26/10/2010 of working committee on commissioning of finished by construction object

/99/ Statement dated 16/09/2011 on object readiness to operation

/100/ Letter # 10/417 dated 07/04/2011 from the Respirator Scientific and Research Institute on Mine Rescue and Fire Safety on net calorific value of gas sampled 21/02/2011

/101/ Calibration certificate # 5425 dated 28/10/2011, valid till 28/10/2012, on gas analyzer type NGA5, fabrication # 4009.87, issued by the Donetskstandartmetrolohia State Enterprise

/102/ Passport on transducer type MTM201D, fabrication # 3401 (last calibration date – 31/10/2011)

/103/ List of documents that were prepared for verification in April 2012

/104/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 10558 (last calibration date – 23/11/2010)

/105/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 10560 (last calibration date – 23/11/2010)

/106/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 10567 (last calibration date – 23/11/2010)

/107/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 10571 (last calibration date – 23/11/2010)

/108/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 11185 (last calibration date – 23/11/2010)

/109/ Passport on gas flow-meter type ДРГ.М-160, fabrication # 11193 (last calibration date – 23/11/2010)

/110/ Passport on gas flow-meter type ДРГ.М-10000, fabrication # 12053 (last calibration date – 23/11/2010)
/111/ Passport on gas flow-meter type ДРГ.М-10000, fabrication # 12054 (last calibration date – 23/11/2010)
/112/ Passport on gas flow-meter type ДРГ.М-10000, fabrication # 12057 (last calibration date – 23/11/2010)
/113/ Passport on gas flow-meter type ДРГ.М-10000, fabrication # 12056 (last calibration date – 23/11/2010)
/114/ Passport on gas flow-meter type ДРГ.М-10000, fabrication # 12059 (last calibration date – 23/11/2010)
/115/ Passport on transducer type ДРГ.М-10000, fabrication # 12061 (last calibration date – 23/11/2010)
/116/ Passport on gas meter type ДРГ.М-10000, fabrication # 14037 (last calibration date – 26/04/2011)
/117/ Passport on gas meter type ДРГ.М-10000, fabrication # 14043 (last calibration date – 26/04/2011)
/118/ Passport on gas meter type ДРГ.М-10000, fabrication # 14045 (last calibration date – 26/04/2011)
/119/ Passport on gas meter type ДРГ.М-10000, fabrication # 14041 (last calibration date – 26/04/2011)
/120/ Passport on gas meter type ДРГ.М-10000, fabrication # 14042 (last calibration date – 26/04/2011)
/121/ Passport on gas meter type ДРГ.М-10000, fabrication # 14034 (last calibration date – 26/04/2011)
/122/ Passport on gas meter type ДРГ.М-10000, fabrication # 14040 (last calibration date – 26/04/2011)
/123/ Passport on transducer type MTM201D, fabrication # 3690 (last calibration date – 25/05/2011)
/124/ Passport on transducer type MTM201D, fabrication # 3658 (last calibration date – 25/05/2011)
/125/ Passport on transducer type MTM201D, fabrication # 3691 (last calibration date – 25/05/2011)
/126/ Passport on transducer type MTM201D, fabrication # 3689 (last calibration date – 25/05/2011)
/127/ Passport on transducer type MTM201D, fabrication # 3692 (last calibration date – 25/05/2011)
/128/ Passport on transducer type MTM201DIEx, fabrication # 1766 (last calibration date – 25/05/2011)
/129/ Passport on transducer type MTM201DIEx, fabrication # 1771 (last calibration date – 25/05/2011)
/130/ Passport on transducer type MTM201DIEx, fabrication # 1769 (last calibration date – 25/05/2011)
/131/ Passport on transducer type MTM201DIEx, fabrication # 1767 (last calibration date – 25/05/2011)
/132/ Passport on transducer type MTM201DIEx, fabrication # 1770 (last calibration date – 25/05/2011)
/133/ Passport on transducer type MTM201DIEx, fabrication # 1768 (last calibration

date – 25/05/2011)
/134/ Passport on JMS 620 GS-S.L module, unit # 584153 1, engine # 584154 1
/135/ Operational journal of HOFGAS – IFL4c9000 flare unit ("Colliery Group "Pokrovs'ke")
/136/ Logbook on personnel training of HOFGAS IFL4c 9000 operation ("Colliery Group "Pokrovs'ke")
/137/ Photo–JMS 620 GS-S.L module, control unit (2)
/138/ Photo–JMS 620 GS-S.L module, control unit (4)
/139/ Photo–JMS 620 GS-S.L module, control unit (6)
/140/ Photo–JMS 620 GS-S.L module, control unit (3)
/141/
/142/ B1 measuring data for the period from 01/11/2011 to 30/04/2012
/143/ CHP measuring data for the period from 01/11/2011 to 30/04/2012
/144/ F1 measuring data for the period from 01/11/2011 to 30/04/2012
/145/
/146/ Report on air protection for the first quarter of 2011. Form # 2-ТП (air) (per quarter)
/147/ Report on air protection for the second quarter of 2011. Form # 2-ТП (air) (per quarter)
/148/ Report on air protection for the third quarter of 2011. Form # 2-ТП (air) (per quarter)
/149/ Report on air protection for the first quarter of 2012. Form # 2-ТП (air) (per quarter)
/150/ Report on air protection for 2011. Form # 2-ТП (air) (annual)
/151/ Report on water consumption for the first quarter of 2011
/152/ Report on water consumption for the second quarter of 2011
/153/ Report on water consumption for the third quarter of 2011
/154/ Report on water consumption for the fourth quarter of 2011
/155/ Report on water consumption for the first quarter of 2012
/156/ Wastes handling for 2011. Form # 1-wastes (annual)

Persons interviewed:

List persons interviewed during the verification or persons that contributed with other information that are not included in the documents listed above.

/1/ Ievhen Khalimendikov– Chief Engineer, 1st Deputy General Director of PJSC "Colliery Group "Pokrovske"
/2/ Artem Dmytryk – Head of the cogeneration department of PJSC "Colliery Group "Pokrovske"
/3/ Oleksandr Skochko – Head of the degasation department of PJSC "Colliery Group "Pokrovske"
/4/ Anatolyi Demchenko – Deputy Chief Engineer of Degasification and Cogeneration Units, PJSC "Colliery Group "Pokrovske"
/5/ Artyom Bashak – Chief of Degasification Unit, PJSC "Colliery Group "Pokrovske"
/6/ Vladymyr Maslov – Energy Engineer of Degasification Unit, PJSC "Colliery Group "Pokrovske"

/7/ Pavel Tokarev – Environmental Protection Engineer, PJSC "Colliery Group "Pokrovske"
/8/ Igor Pereyaslovskyi – Maintenance Diagnostics Engineer, PJSC "Colliery Group "Pokrovske"
/9/ Elena Parkhomenko – Shift Dispatcher, PJSC "Colliery Group "Pokrovske"
/10/ Elena Trukhanova – Boiler House Operator, PJSC "Colliery Group "Pokrovske"
/11/ Pavlo Sheleheda – Deputy Director of "Eco-Aliance" Ltd.
/12/ Viktor Avtonomov – JI project manager of "Eco-Aliance" Ltd.
/13/ Karl Woste – Senior consultant, Carbon-TF B.V.
/14/ Adam Hadulla – Director Business Development, Carbon_TF B.V.
/15/ Dmytryi Kozhemyakin – Chief of Department of Energy Power Directorate, PJSC "Donetskstal"

APPENDIX A: VERIFICATION PROTOCOL
BUREAU VERITAS CERTIFICATION HOLDING SAS

Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	The project has been approved by both the host Party (Ukraine) and the other Party involved (the Netherlands). The written project approvals were issued by DFPs of Parties involved; the respective Letters of Approval were available at the beginning of 1st verification of the project.	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
Project implementation				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	OK	OK	OK
93	What is the status of operation of the project during the monitoring period?	There was delay in project implementation as scheduled in the PDD caused by the lack of funds. During the given monitoring period only one upgraded boiler, one flare and 4 of 6 units at the cogeneration station were operational. The upgraded boiler has been	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		in operation since October 2003. The flare unit at Central Shaft was commissioned on 26/10/2010. The installation of the cogeneration units (6 units) at Central Shaft was completed in the end of 2011 but only 4 units (#2, #3, #4 and #6) out of 6 are currently operational. The installation of further project units (flares at degassing wells, flares and cogeneration units at Air Shaft No.2) should follow in 2012. The status of project activity implementation compared to the PDD is presented in the section A.6 of the Monitoring Report.		
Compliance with monitoring plan				
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The monitoring occurred in accordance with the PDD regarding which the determination has been deemed final with some changes presented in the revised monitoring plan (refer to Section 99(a) below).	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	Key factors, such as availability and amount of extracted coal gas, concentration of methane in the extracted gas etc, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account for calculating the emission reductions.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and	Data sources used for calculating emission reductions are listed in MR sections B.1.2, B.2.1 to B.2.4. The data sources used in the present monitoring period	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	transparent?	include: - direct measurements of the CMM amount sent to the flare; - direct measurements of the CMM amount sent to the boiler; - electricity consumed by the project; - concentration of methane in extracted gas; - CMM captured by the project activity; - heat generation by the project; and - the flare flame temperature. All measurements are performed with appropriate calibrated measurement equipment (flow meter, pressure transmitter, resistance temperature meter etc.); - laboratory analysis of NMHC concentration in the extracted gas; - data from the approved CDM methodology ACM0008 for carbon emission factor for combusted methane; - IPCC data for efficiency of methane destruction/oxidation in the power and heat plants, carbon emission factor for combusted methane, methane GWP; - official data of the State Environmental Investment Agency of Ukraine on specific carbon dioxide non direct emissions factor for consumption of electricity generated by power stations of united energy system of Ukraine; - “National Inventory Report of Anthropogenic Emissions from Sources and Absorption by Absorbers		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		of Greenhouse Gases in Ukraine for 1990-2009" - equipment specifications (passports for boiler and cogeneration units). All data sources used for calculating emission reductions are clearly identified, reliable and transparent.		
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Emission factors applied in calculation of the emission reduction for this monitoring period, listed in the above section, are selected by carefully balancing accuracy and reasonableness, and are appropriately justified of the choice.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The performed calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.	OK	OK
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/A	N/A	N/A
Applicable to bundled JI SSC projects only				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/A	N/A	N/A
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/A	N/A	N/A
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?	N/A	N/A	N/A
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	In the course of considered monitoring period (01/11/2011 – 30/04/2012) the original monitoring plan described in the registered PDD version 04 of 10/09/2008 was modified by the project participants. For the detailed description of changes made to the original monitoring , please, refer to Section 3.5. of the present verification report. **CL 08.** The reason for making revision of the MP is not clear and vivid from the MR. It is not vivid either what changes to the MP have been already made during the	CL08 CL18 CL32 CAR24	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		previous monitoring periods and the ones made in the current monitoring period. Please, provide in the respective sections of the MR transparent step-by-step description of those changes starting from the very first revision of the MP up to the presently submitted revised MP. Justifications for making revisions to the MP are also to be provided. **CL 18.** Please explain the reason for the revision made for the parameter P13. **CL 32.** It is stated in Annex 4 of the MR that PE_{flare} is calculated using adopted formulae from ACM 0008 Version 5 whereas the PPs state that they use ACM 0008 Version 3 for monitoring. Please explain this issue. **CAR 24.** Please clearly indicate where are the adopted formulae (9a), (5), (29) in Annex 4 of the MR taken from.		
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?		OK	OK
Data management				
101 (a)	Is the implementation of data collection	The implementation of data collection procedures is in	CAR05	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	accordance with the PDD and revised monitoring plan, including the quality control and quality assurance procedures. **CAR 05.** The CO2 emission factor for the grid has not been adopted for the period 2011-2012. Please corrected this statement using e.g. the following phrase "according to the latest approved value" (Table #6 of the MR) **CAR 06.** It is not clear from the table of fixed values # 6 what the abbreviations mean and the references are made for. Please, provide the full names for the abbreviations or links for those documents specifying the chapters, page or table numbers, if applicable **CAR 07.** The term "power" the PPs use to denote the electricity generated is rather confusing as it can be referred to any kind of power. Please make it clear by using e.g. the term "electricity". (MR Table 7, excel file) **CAR 08.** The amount of electricity and heat produced for the period from 01/11/2011 till 31/12/2011 can't be accounted for emission reductions calculation for three reasons: - the Licence on electricity and heat power production by CHP plant was issued 23/12/2011 and thus, the enterprise wasn't	CAR06 CAR07 CAR08 CAR09 CL17 CL21 CL27 CAR20	OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		legally authorized to produce electricity and heat power; - the monthly hand written data on electricity generation and CMM utilization are not sufficient and reliable enough; - there are no Commissioning Statements for the units being currently in operation; the Statements on Tests provided by the PPs to the verification team during the site visit were issued in 2012. **CAR 09.** Annex 4 of the MR reads: "The methane amount utilised in this period has been recalculated using the produced power amount and the average power generation efficiency determined using the available electronically data from the later period from 14/03/2012 to 30/04/2012". The period mentioned above is not sufficient for determining average power generation efficiency and thus, it should be recalculated based on the technical characteristics of the cogeneration units. It should be beard in mind that the most conservative values should be taking into account **CL 17.** Parameter P9 was not included in the MP of the determined PDD. Please explain this inconsistency and make corrections respectively **CL 21.** Parameter T_{flame} is absent in the PDD. Please,		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		explain this inconsistency. Where is it mentioned in the table of the measuring equipment? **CL 27.** The data collection procedure is not described in the MP. Please provide it. Please also provide the description of the automatic systems for collecting and storing information in the MP. **CAR 20.** There are calculation mistakes in Table D.3.4 (Project emissions, baseline emissions and emission reductions) of the MR. Please, make appropriate corrections.		
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	Measurement equipment for cogeneration unit was added into the table providing information on the monitoring equipment used in section B.1. (positions 18-67). The measurement equipment used for project monitoring is serviced, calibrated and maintained in accordance with the original manufacturer's instructions and industry standards. Still, some issues as to the used monitoring equipment which need to be corrected or clarified were indentified: **CL 04.** Please, provide a document that evidences the latest replacement of thermo couple	CL04 CAR04 CL05 CL15 CAR10 CL26 CAR22	OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 04. The time for calibration of Vegabar 17 Serial number 20108320 expired on 13/04/2012, i.e. before the end of the monitoring period. Please provide the calibration schedule or any other document to demonstrate the date on which next calibration will be done. **CL 05.** Please make it clear what heat meter from the list of monitoring equipment (MR Table 4) is used to measure heat generated. **CL 15.** Please provide passports on the cogeneration units installed to evidence the range of their electricity/heat efficiency. **CAR 10.** Please specify the power source and location of the electricity meter indicated in the table of the measuring equipment as ID 65. In this respect, please, also explain the following statement from Annex 4 of the MR: “To register energy consumed for own needs the electricity meter installed on the line after own needs transformer 6kV/380V is used. To register electricity consumed by the gas blowers, two electric meters will be installed at the supply inputs of gas blowers №1 and №2”. The question arises whether those meters are planned or have been already installed. **CL 26.** Please provide clarification as for the heat meter for measuring heat generated by the project		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		(parameter B47). Please also explain in what way the measuring are done in 15 minute intervals. **CAR 22.** Types, years of manufacturing of the installed cogeneration units described in the MR are not consistent with the ones presented in Data registration Forms presented by Jenbacher Company. Please bring them in line.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	All necessary information for monitoring of GHGs emission reductions is stored in paper or/and electronic formats. The data for the boiler are collected, processed and stored using a Siemens SIMATIC PLC S7 system and Siemens WINCC programming software. The data can be read any time from the internet data base by authorised personnel. As all input data are stored, the automatically calculation can by checked in retrospect any time. For the flare and the cogeneration units Sinapse has provided there is a system for data collecting, archiving and sending to Internet, called Graphic Data Manager RSG 40 Memograph M developed and provided by Sinapse. The data is stored in the memory of computer for 6 months. Every month coal mine personnel save the data into flash memory and send it to Eco-Alliance. **CAR 01.** Table 1 in Section A.3. doesn't actually contain information on the amount of methane utilized	CAR01 CL01 CAR02 CAR03 CL03 CAR08 CL06 CL07 CL09 CL10 CL11 CL12 CL13 CL14 CAR11 CAR12 CL20 CL22 CAR13 CAR14	OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		for flaring Please, make corrections appropriately **CL 01.** Please, provide documents evidencing that the cogeneration units #2, 3, 4, 6 were put into operation in October-November 2011respectively as it is stated in Table 2 of the MR. **CAR 02.** The serial numbers of cogeneration units #4 and #6 are incorrect. (MR Table 2) Please, make corrections appropriately **CAR 03.** There is a mistake in time period when the CMM amount was calculated using the produced power amount and efficiency of the engines. **CL 03.** What does the abbreviation IEC611036 for the parameter ID16 in Table 4 stand for? Remove it or provide its full name **CAR 08.** The amount of electricity produced indicated in supporting excel file (monthly gas flow + electricity) differs from the one in the document “Operation of CHP units in December 2011” presented to the verification team during the site visit. Please bring those data in line and make respective corrections. **CL 06.** Please provide the data from the enterprise on the amount of electricity produced in November	CL23 CL24 CL25 CAR15 CL28 CL29 CAR21 CL30 CL31	OK OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		2011(“Operation of CHP units in November 2011”. **CL 07.** Please provide the data from the log book on the methane utilised in boiler indicating a monthly total amount of the destroyed **CL 09.** Please provide documentary evidence proving that the flare was out of operation during the reported monitoring period. **CL 10.** Please provide journal on calibration of gas analyser. **CL 11.** Please provide the Parts substitution journal. **CL 12.** Please provide the journal on the readings of electricity meter type SL 7000 # 53024005 **CL 13.** Please provide the Failure and interruption journal **CL 14.** Please provide the Emergency cases journal **CAR 11.** In Table 6 of the MR the revised monitoring plan is indicated as a source of data for the parameter P13. It is not clear what revised monitoring plan is meant in this case. The monitoring report itself can’t serve the source of data. The source of data should be provided more specifically.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 12. The meaning of the following sentence: "In difference to the flaring tool a combustion efficiency of 99.5%, according to the IPCC guidelines [IPCC] (see also ACM0008 Version 1 and Version 2), has been taken into account for combustion temperatures above 1000℃; see justification in Annex 2". is not clear due to the language mistakes or omissions. Please make it clear. **CL 20.** Please provide explanation as for the hand readings from the internal counter of the units mentioned for the parameter P17. What internal counter and what units are meant in this case? Please provide those readings for each month of the monitoring period. **CL 22.** In Section D.1.1.2. provide the description of symbols in the formula for PE **CAR 13.** The equation used to calculate project emissions from methane destroyed (PE_{MD}) should be amended by splitting MD_{HEAT} into heat produced in boiler ($MD_{HEATboiler}$) and heat produced in CHP ($MD_{HEATcog}$). **CAR 14.**There is neither explanation nor justification provided for adoption of the formula for the methane		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		destroyed through flaring from the «Methodological "Tool to determine project emissions from flaring gases containing methane". The project participants don't explain in what monitoring period that adoption was made. **CL 23.** The information concerning power production records at CHP in the time period from November 2011 to March 13, 2012 is confusing (see p.11). Please make it clear. **CL 24.** There is no explanation on the origin of the formulas 29 and 30 as well as justification for their use. Please, provide explanation on these issues. **CL 25.** What is the reason for exclusion of HV_{CH4} parameter from the list of parameters that are the subject to monitoring. Please provide explanation as for the source of data it has been taken from **CAR 15.** There is neither explanation nor any comments on the formula 8 used for calculation of methane destroyed through heat generation? Was destroyed at CHP or boiler? What does "heat plant" means in this formula, CHP or boiler? **CL 28.** Please provide a step-by-step explanation on how the values in columns BCDE of the calculation		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		spreadsheet for each month of the monitoring period were achieved. **CL 29.** Please explain why project emissions from energy use to capture and use methane (column K in the calculation spreadsheet) were not highlighted in blue color as being included in the MR? **CAR 21.** There is a following inconsistency that concerns the value 622 tCO_2eq which is referred in the MR as "power generation" (Section D.3.2) and "Project emissions from energy use to capture and use methane" (column K) in the Excel file. Please provide explanations as for this issue or make appropriate corrections. **CL 30.** Sections A.6. and A.9. of the MR states that the installation of the cogeneration units at the main shaft has been completed. Please specify the quantity of the installed cogeneration units. **CL31.** Please explain the meaning of the abbreviation MakNII presented in Figure 1 of the MR Section C.1.1. as well as in the RMP.		
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The data collection and management system for the project is in accordance with the PDD and revised monitoring plan. The verification team confirms	CL02 CL16 CAR16	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		effectiveness of the existing management and operational systems and found them eligible for reliable project monitoring. **CL 02.** Please explain the reason why the monitoring frequency was changed for some of the parameters (MR A.8.) **CL 16.** It is stated in Section C.3. of the MR that every 2 weeks a monitoring engineer from Eco-Alliance makes audits (of what?) and remarks this (what?) in the operational journal (what is registered in that journal?). The mechanic on duty from the coal mine makes daily audits (of what? In what way the results of those audits are documented?) . The monitoring engineer (Eco-Alliance) checks the data (what kind of data?) from web-site (what web-site?) every day and makes internal weekly reports (please, provide some of those reports for verification) **CAR 16.** There is a mistake in the comment to equation 9 as far as PE_{UM} means project emissions from un-combusted methane, not un-combusted methane **CAR 17.** There is another formula in the PDD used for the project emissions from un-combusted methane. No explanation for this issue. Please provide them	CAR17 CAR18 CAR19 CAR23	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 18. The indexes for methane measured sent to flaring (9a) differ in the formula and the description to it. Please correct the mistake. **CAR 19.** Formula 24 describes total baseline emissions, not the total emissions reductions. Please correct it. Please explain as well how you obtained this formula as it is presented neither the PDD nor in the methodology **CAR 23.** Reference to the Methodological "Tool to determine project emissions from flaring gases containing methane" indicated in Annex 1 of the MR is no more valid. Please, provide the updated one.		
Verification regarding programmes of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/A	N/A	N/A
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/A	N/A	N/A
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/A	N/A	N/A
104	Does the monitoring period not overlap with previous monitoring periods?	N/A	N/A	N/A
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	findings in writing?			
	Applicable to sample-based approach only			
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: − The types of JPAs; − The complexity of the applicable technologies and/or measures used; − The geographical location of each JPA; − The amounts of expected emission reductions of the JPAs being verified; − The number of JPAs for which emission reductions are being verified; − The length of monitoring periods of the JPAs being verified; and − The samples selected for prior verifications, if any?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	N/A	N/A	N/A
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	N/A	N/A	N/A
109	Is the sampling plan available for submission to the secretariat for the JISC ex ante assessment? (Optional)	N/A	N/A	N/A
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?	N/A	N/A	N/A

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarification and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
Requests to the MR			
CAR 01. Table 1 in Section A.3. doesn't actually contain information on the amount of methane utilized for flaring Please, make corrections appropriately	101 (c)	The amount of methane utilized for flaring has been included in Table 1.	CAR 01 is closed based on the inclusion of amount of methane in Table1.
CL 01. Please, provide documents evidencing that the cogeneration units #2, 3, 4, 6 were put into operation in October-November 2011respectively as it is stated in Table 2 of the MR.	101 (c)	See in attached: KZ-1 - Jenbacher commissioning.rar	CL 01 is closed based on the documents provided.
CAR 02. The serial numbers of cogeneration units #4 and #6 are incorrect. (MR Table 2) Please, make corrections appropriately	101 (c)	Numbers are correct. See attached document: KZ-2 - Identify numbers of modules and engines.xls	Issue is closed based on the documents provided.

CL 02. Please explain the reason why the monitoring frequency was changed for some of the parameters (MR A.8.)	101 (d)	The monitoring frequency has not been changed really. In the PDD most of the variables has been taken from the Methodology ACM0008 including the index y (for yearly values). This has been changed during the second Monitoring period (first by BV) to 15 min. recording period of measurement values and monthly calculation of calculated values. Beside that handwritten data (monthly values) have been taken into account for the power production of the cogeneration units as stated under A.4.2.	CL 02 is closed.
CAR 03. There is a mistake in time period when the CMM amount was calculated using the produced power amount and efficiency of the engines.	101 (c)	MR was corrected.	Issue is closed.
CL 03. What does the abbreviation IEC611036 for the parameter ID16 in Table 4 stand for? Remove it or provide its full name	101 (c)	MR was corrected. The abbreviation was removed.	Issue is closed.
CL 04. Please, provide a document that evidences the latest replacement of thermo couple	101 (b)	The document is attached: KZ-3 - Thermocouple change.jpg	Issue is closed based on the documents provided.

CAR 04. The time for calibration of Vegabar 17 Serial number 20108320 expired on 13/04/2012, i.e. before the end of the monitoring period. Please provide the calibration schedule or any other document to demonstrate the date on which next calibration will be done.	101 (b)	The calibration for Measuring Transformer Vegabar 17 was supposed to be done due to the date of it's installation in August 2011 as this measuring equipment is new and was not used before but was done earlier: KZ-4 - Vegabar calibration.jpg	Issue is closed based on the documents provided.
CAR 05. The CO2 emission factor for the grid has not been adopted for the period 2011-2012. Please corrected this statement using e.g. the following phrase "according to the latest approved value" (Table #6 of the MR)	101 (a)	MR was corrected.	Issue is closed.
CAR 06. It is not clear from the table of fixed values # 6 what the abbreviations mean and the references are made for. Please, provide the full names for the abbreviations or links for those documents specifying the chapters, page or table numbers, if applicable	101 (a)	The links have been included under Annex 1. NEIA changed to SEIA, but the website's name remain the same: www.neia.gov.ua	Issue is closed.

CAR 07. The term "power" the PPs use to denote the electricity generated is rather confusing as it can be referred to any kind of power. Please make it clear by using e.g. the term "electricity". (MR Table 7, excel file)	101 (a)	The term "power" as well as "power generation" is originally taken from the methodology ACM0008 and is used consequently in the PDD and all previous MR's. The methodology uses other terms for other powers, e.g. vehicle power, motive power, caption power etc. The project uses three kind of utilisation: • Heat generation with a boiler. • Combined heat and power generation in cogeneration units (CHP). • Flaring. As there is no other power generation any kind of confusion can be excluded.	CAR 07 is closed based on the explanation provided by the PPs.
CL 05. Please make it clear what heat meter from the list of monitoring equipment (MR Table 4) is used to measure heat generated.	101 (b)	Actually there is no heat meter in the list of monitoring equipment. The heat generated by cogeneration units haven't been taken into account during this monitoring period. The heat generated by boilers is measured by vortex flow meter using parameters of steam pressure and temperature.	CL 05 is closed.

CAR 08. The amount of electricity produced indicated in supporting excel file (monthly gas flow + electricity) differs from the one in the document "Operation of CHP units in December 2011" presented to the verification team during the site visit. Please bring those data in line and make respective corrections.	101 (c)	The data in Excel file shows produced electricity, consumed electricity and produced/consumed electricity while the document "Operation of CHP units in December 2011" shows the produced electricity already taking into account consumed. Data used for calculations in Excel is produced/consumed electricity and it's similar to data in document.	Explanation has been provided. CAR 08 is closed.
CL 06. Please provide the data from the enterprise on the amount of electricity produced in November 2011("Operation of CHP units in November 2011".	101 (c)	The document is attached: KZ-5 - October-December.jpg	Issue is closed based on the documents provided.
CL 07. Please provide the data from the log book on the methane utilised in boiler indicating a monthly total amount of the destroyed methane in December 2011.	101 (c)	Note from the logbook is attached: KZ-6 - Boilerhouse December.jpg	Issue is closed based on the documents provided.
CL 08. The reason for making revision of the MP is not clear and vivid from the MR. It is not vivid either what changes to the MP have been already made during the previous monitoring periods and the ones made in the current monitoring period. Please, provide in the respective sections of the MR transparent step-by-step description of those changes starting from the very first revision of the MP up to the presently submitted revised MP. Justifications for making revisions to the MP are also to be provided.	99 (a)	*PPs comments on Request #1:* See changes under Annex 3 of the RMP. *PPs comments on Request #2:* The MR was corrected.	*Conclusion on request #1;* CL 08 is not closed. A new phase of the project implementation as well as deviations made to the ER s calculations in the current monitoring period are not vividly and transparently described in the MR. *Final conclusion:* Issue is closed based on the required amendments made to the MP.

CL 09. Please provide documentary evidence proving that the flare was out of operation during the reported monitoring period.	101 (c)	The evidence is attached: KZ-7 - Flare stops.jpg	Issue is closed based on the documents provided.
CL 10. Please provide journal on calibration of gas analyser.	101 (c)	See in attached: KZ-8 - Gasanalyzer calibrations.rar	Issue is closed based on the documents provided.
CL 11. Please provide the Parts substitution journal.	101 (c)	See in attached: KZ-3 - Thermocouple change.jpg	Issue is closed based on the documents provided.
CL 12. Please provide the journal on the readings of electricity meter type SL 7000 # 53024005	101 (c)	See in attached: KZ-9 - Electricity meter.rar	Issue is closed based on the documents provided.
CL 13. Please provide the Failure and interruption journal	101 (c)	See in attached: KZ-6 - Flare stops.jpg	Issue is closed based on the documents provided.
CL 14. Please provide the Emergency cases journal	101 (c)	See in attached: KZ-10 - Emergency cases.jpg	Issue is closed based on the documents provided.
CL 15. Please provide passports on the cogeneration units installed to evidence the range of their electricity/heat efficiency.	101 (b)	See in attached: KZ-11 - Note from the passport.rar	Issue is closed based on the documents provided.

CAR 08. The amount of electricity and heat produced for the period from 01/11/2011 till 31/12/2011 can't be accounted for emission reductions calculation for three reasons: - the Licence on electricity and heat power production by CHP plant was issued 23/12/2011 and thus, the enterprise wasn't legally authorized to produce electricity and heat power; - the monthly hand written data on electricity generation and CMM utilization are not sufficient and reliable enough; - there are no Commissioning Statements for the units being currently in operation; the Statements on Tests provided by the PPs to the verification team during the site visit were issued in 2012.	101 (a)	The electricity amount will be recalculated, but: - before the license was obtained there was a letter from regional electrical authority on allowing the commissioning works: KZ-12 - Letter from regional electric net.jpg - The registered PDD stipulates monthly readings of power and heat meters, recorded on paper or electronically (e.g. Excel-sheet), so the hand written data are sufficient. - see in attached: KZ-1 - Jenbacher commissioning.rar	CAR 08 is closed based on the recalculations of the produced electricity amount.

CAR 09. Annex 4 of the MR reads: "The methane amount utilised in this period has been recalculated using the produced power amount and the average power generation efficiency determined using the available electronically data from the later period from 14/03/2012 to 30/04/2012". The period mentioned above is not sufficient for determining average power generation efficiency and thus, it should be recalculated based on the technical characteristics of the cogeneration units. It should be beard in mind that the most conservative values should be taking into account	101 (a)	The new value was taken from the passport.	Recalculations have been made based on the most conservative value of the power generation efficiency of cogeneration unit. CAR 09 is closed.
CAR 10. Please specify the power source and location of the electricity meter indicated in the table of the measuring equipment as ID 65. In this respect, please, also explain the following statement from Annex 4 of the MR: "To register energy consumed for own needs the electricity meter installed on the line after own needs transformer 6kV/380V is used. To register electricity consumed by the gas blowers, two electric meters will be installed at the supply inputs of gas blowers №1 and №2". The question arises whether those meters are planned or have been already installed.	101 (b)	The electricity meter under ID 65 is located at the transformer 6,3 kV and is used for measuring produced electricity of cogeneration station. The meters for gas blowers are planned to be installed.	Issue is closed based on the explanation provided.

CAR 11. In Table 6 of the MR the revised monitoring plan is indicated as a source of data for the parameter P13. It is not clear what revised monitoring plan is meant in this case. The monitoring report itself can't serve the source of data. The source of data should be provided more specifically.	101 (c)	The source is the boiler passport. The reference to the boiler passport has been introduced in the RMP, Version 5. MR was corrected.	CAR 11 is closed based on the amendment made in the MR.

CL 16. It is stated in Section C.3. of the MR that every 2 weeks a monitoring engineer from Eco-Alliance makes audits (of what?) and remarks this (what?) in the operational journal (what is registered in that journal?). The mechanic on duty from the coal mine makes daily audits (of what? In what way the results of those audits are documented?) . The monitoring engineer (Eco-Alliance) checks the data (what kind of data?) from web-site (what web-site?) every day and makes internal weekly reports (please, provide some of those reports for verification)	101 (d)	*PPs comments on Request #1:* - Of data which is written in operational journal by boiler staff (set of parameters taken from the monitoring system screen); - that checking of data was made; - set of parameters registered by monitoring system (temperature, pressure, concentration, etc.); - Of registering data from monitoring system screen by boiler staff; in case of any monitoring system failure it's reported to staff of Eco-Alliance; - Set of parameters registered by monitoring system and transferred to site of Eco-Alliance; - Eco-alliance.com.ua; - the term "reports" refers to internal e-mails and phone calls. *PPs comments on Request #2:* Information in MR was extended.	*Conclusion on Request #1:* CL16 is not closed as the information requested has not been depicted in the MR. *Final Conclusion:* The MR was amended with the PPs explanations. Issue is closed.
Requests to the Revised Monitoring Plan			

CAR 12. The meaning of the following sentence: "In difference to the flaring tool a combustion efficiency of 99.5%, according to the IPCC guidelines [IPCC] (see also ACM0008 Version 1 and Version 2), has been taken into account for combustion temperatures above 1000℃; see justification in Annex 2". is not clear due to the language mistakes or omissions. Please make it clear.	101 (c)	Please take a look in the table in Annex 2. T_{Flame} flare efficiency > 1000℃ 99.5% 500-1000℃ 90.0% < 500℃ 0.0% There are three different *default* values for the flare efficiency depending on the measured combustion temperature. The deviation of the default value of 99.5% from the method described in the flaring tool has been already determined in the registered PDD.	CAR 12 is closed based on the clarification provided.
CL 17. Parameter P9 was not included in the MP of the determined PDD. Please explain this inconsistency and make corrections respectively	101 (a)	This change is not an inconsistency but has been introduced already in the first MR (01) for getting more accurate results. Please see Annex A.4.1 in the MR and Annex 3 of the RMP for justification.	Issue is closed.
CL 18. Please explain the reason for the revision made for the parameter P13.	99 (a)	Please see Annex A.4.1 in the MR and Annex 3 of the RMP for justification. As well as Annex 2 of the RMP for explanations.	CL 18 is closed.

CL 20. Please provide explanation as for the hand readings from the internal counter of the units mentioned for the parameter P17. What internal counter and what units are meant in this case? Please provide those readings for each month of the monitoring period.	101 (d)	RMP was corrected. The comment was left from time when there was no electronic monitoring system installed.	CL 20 is closed based on the correction made in the MR.
CL 21. Parameter T_{flame} is absent in the PDD. Please, explain this inconsistency. Where is it mentioned in the table of the measuring equipment?	101 (a)	a) Please see Annex A.4.1 in the MR and Annex 3 of the RMP for justification. As well as Annex 2 of the RMP for explanations. b) ID17 – Flame temperature	Issue is closed.
CL 22. In Section D.1.1.2. provide the description of symbols in the formula for PE	101 (c)	RMP was revised.	CL 22 is closed.
CAR 13. The equation used to calculate project emissions from methane destroyed (PE_{MD}) should be amended by splitting MD_{HEAT} into heat produced in boiler ($MD_{HEATboiler}$) and heat produced in CHP ($MD_{HEATcog}$).	101 (c)	This step is planned for the next Monitoring Period, as no counting for $MD_{HEATcog}$ took place until now and there's no use for the split of the formula at this time.	CAR 13 is closed.
CAR 14. There is neither explanation nor justification provided for adoption of the formula for the methane destroyed through flaring from the «Methodological "Tool to determine project emissions from flaring gases containing methane". The project participants don't explain in what monitoring period that adoption was made.	101 (c)	This change has been introduced already in the first MR (01) for getting more accurate results. Please see Annex A.4.1 in the MR and Annex 3 of the RMP for justification.	CAR 14 is closed.

CL 23. The information concerning power production records at CHP in the time period from November 2011 to March 13, 2012 is confusing (see p.11). Please make it clear.	101 (c)	The text has been restructured. Since December 2011: daily recording in the journals. Since 14/03/2012 electronically recording	CL 23 is closed based on the corrections made by the PPs.
CL 24. There is no explanation on the origin of the formulas 29 and 30 as well as justification for their use. Please, provide explanation on these issues.	101 (c)	See A.4.2. of the MR and Annex 3 of the RMP.	Explanation has been provided. Issue is closed.
CL 25. What is the reason for exclusion of HV_{CH4} parameter from the list of parameters that are the subject to monitoring. Please provide explanation as for the source of data it has been taken from	101 (c)	It is a constant, which can be found in any physics or chemistry textbook. We are using DIN EN ISO 6976 as reference. Reference included in RMP.	CL 25 is closed based on the source of data and reference to it provided.
CAR 15. There is neither explanation nor any comments on the formula 8 used for calculation of methane destroyed through heat generation? Was destroyed at CHP or boiler? What does "heat plant" means in this formula, CHP or boiler?	101 (c)	This formula is originally taken from the methodology ACM0008. The methodology does not distinguish between several heat production plants. In this monitoring period only heat generated by the boiler is taken into account so "heat plant" is clear. We are planning to modify/split the formula in the coming monitoring period. See our comments above.	CAR 15 is closed based on the comments provided.
CAR 16. There is a mistake in the comment to equation 9 as far as PE_{UM} means project emissions from un-combusted methane, not un-combusted methane	101 (d)	Corrected	CAR 15 is closed.

CAR 17. There is another formula in the PDD used for the project emissions from un-combusted methane. No explanation for this issue. Please provide them	101 (d)	The formula set has been changed. This change has been introduced already in the first MR (01) for getting more accurate results. Please see Annex A.4.1 in the MR and Annex 3 of the RMP for justification.	CAR 17 is closed.
CAR 18. The indexes for methane measured sent to flaring (9a) differ in the formula and the description to it. Please correct the mistake.	101 (d)	Corrected	CAR 18 is closed.
CL 26. Please provide clarification as for the heat meter for measuring heat generated by the project (parameter B47). Please also explain in what way the measuring are done in 15 minute intervals.	101 (b)	For heat generated by boilers the vortex flow meter is used which processes different parameters (steam temperature, steam pressure, etc.) and shows the value of heat for period of 15 minutes.	Clarification has been provided. CL 26 is closed.
CAR 19. Formula 24 describes total baseline emissions, not the total emissions reductions. Please correct it. Please explain as well how you obtained this formula as it is presented neither the PDD nor in the methodology	101 (d)	a) corrected b) The formula is included in the PDD as No. 24. The formula has been derived from formula No. 24 in the methodology ACM0008, Version 3. c) In the RMP the indices y are removed and Eff_{HEAT} has been replaced by Eff_{COAL} for make it clear which efficiency of which heat generation is exactly mend.	CAR 19 is closed as the explanation has been provided.

CL 27. The data collection procedure is not described in the MP. Please provide it. Please also provide the description of the automatic systems for collecting and storing information in the MP.	101 (a)	Text under D.3 has been extended and revised.	CL 27 is closed based on the required amendment made in the MR.
CAR 20. There are calculation mistakes in Table D.3.4 (Project emissions, baseline emissions and emission reductions) of the MR. Please, make appropriate corrections.	101 (a)	A typing error has been removed.	CAR 20 is closed based on the corrections made to the MR.
CL 28. Please provide a step-by-step explanation on how the values in columns BCDE of the calculation spreadsheet for each month of the monitoring period were achieved.	101 (c)	The data source files as documented in ER table are: <KAZ1-F1_Measuring_Data_2011-11-01 to 2012-04-30.V1.xls> <KAZ1-CHP_Measuring_Data_2011-11-01 to 2012-04-30.V2.xls> <KAZ1-B1_Measuring_Data_2011-11-01 to 2012-04-30.V1.xls> 1) KAZ1-F1_Measuring_Data_2011-11-01 to 2012-04-30.V1.xls In table: "KAZ1-F1 Monthly Total Pivot" you can find in Column E (destroyed by) and D (sent to): Flow Gas [t/period] => ER table Col B and C In this Excel sheet the monthly values of methane were calculated with pivot function from table "KAZ1-F1 Data" (for gaining a smaller file size we have deleted the pivot functionality).	CL 28 is closed.

		2) KAZ1-CHP_Measuring_Data_2011-11-01 to 2012-04-30.V2.xls In table: "Monthly Gas flow+electricity" you'll find in Column F, raw 10 to 13: "Methane, t" => ER table Col D The calculation of monthly methane values is self-explanatory documented in this xls-file (pivot function). 3) KAZ1-B1_Measuring_Data_2011-11-01 to 2012-04-30.V1.xls In table: "KAZ1-B1 Monthly Total" you'll find in Column D: Flow Gas [t/period] => ER table Col E In this xls-file the monthly values of methane were calculated with pivot function from table "KAZ1-B1 Data" (for smaller file size we have deleted the pivot functionality).	
CL 29. Please explain why project emissions from energy use to capture and use methane (column K in the calculation spreadsheet) were not highlighted in blue color as being included in the MR?	101 (c)	The values have been highlighted.	CL 29 is closed.

CAR 21. There is a following inconsistency that concerns the value 622 tCO_2eq which is referred in the MR as "power generation" (Section D.3.2) and "Project emissions from energy use to capture and use methane" (column K) in the Excel file. Please provide explanations as for this issue or make appropriate corrections.	101 (c)	Table D.3.2 is showing the project emissions by different sources. There are two groups: project emissions from *methane destruction* PE_{MD} and project emissions by *additional energy consumption* $PE_{ME.}$ In the first group there are three sources (flaring heat and power generation) in the second group there is only one source: (power generation) Combining the headers and the source gives: *Project emissions by additional energy consumption by power generation* Which means the same as "Project emissions from energy use to capture and use methane", where power generation is the only source for additional energy consumption.	CAR 21 is closed based on the explanation provided.
CAR 22. Types, years of manufacturing of the installed cogeneration units described in the MR are not consistent with the ones presented in Data registration Forms presented by Jenbacher Company. Please bring them in line.	101 (b)	Years of manufacturing were corrected in the MR. There was a mistake in some Jenbacher registration forms when instead of writing the type of cogeneration unit type of installed generator was written. The other serial numbers in forms are correct and equal to the unit numbers.	CAR 22 is closed based on the corrections made in the MR and explanations provided.

CL 30. Sections A.6. and A.9. of the MR states that the installation of the cogeneration units at the main shaft has been completed. Please specify the quantity of the installed cogeneration units.	101 (c)	Section A.9. was extended.	CL30 is closed due to the clarification provided.
CL31. Please explain the meaning of the abbreviation MakNII presented in Figure 1 of the MR Section C.1.1. as well as in the RMP.	101 (c)	MakNII refers to the Russian name of scientific institute "Makeevskiy Nauchno-Issledovatelskiy Institut"	CAR 31 is closed.
CAR 23. Reference to the Methodological "Tool to determine project emissions from flaring gases containing methane" indicated in Annex 1 of the MR is no more valid. Please, provide the updated one.	101 (d)	The new link is: http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-06-v1.pdf MR was corrected.	CAR 23 is closed.
CL 32. It is stated in Annex 4 of the MR that PE_{flare} is calculated using adopted formulae from ACM 0008 Version 5 whereas the PPs state that they use ACM 0008 Version 3 for monitoring. Please explain this issue.	99 (a)	*PPs comments on Request #1:* The original PDD is based on the ACM0008 Version 3. PE_{Flare} was not included in the original PDD and has been introduced in the first RMP during the second verification of the project. At that time the Version 5 of the ACM0008 was topical, so that the reference has been set to the version then in force. *PPs comments on Request #2:* The new version was not applied as PE_{Flare} was originally introduced in ACM0008 version 03.	*Conclusion on Request #1:* CL 32 is not closed. Applying a new version of the Methodology is a subject to the revision of the monitoring plan. Please make this clear in the MP that is being currently revised and amend it with this change. *Final conclusion:* CL 32 is closed based on the explanation provided to the verification team and corrections made to the MR.

CAR 24. Please clearly indicate where are the adopted formulae (9a), (5), (29) in Annex 4 of the MR taken from.	99 (a)	*PPs comments on Request #1:* Formula (9a) (first) and formula (5) are taken from ACM0008, Version 5. Formula (9a) (second) is a resolved and reduced formula developed by Carbon-TF using formulae (9a) (first) and (5). Formula (29) is developed by Carbon-TF using basic physical formulae. *PPs comments on Request #2:* The MP was revised during second verification taking into account changes of formulae (9a) and (5) that is indicated in Annex 3 of RMP. During current monitoring period RMP was revised taking into account the additional formulae (29).	*Conclusion on Request #1:* CAR 24 is not closed. The changes made to the MP require revision of the monitoring plan. *Final conclusion:* CAR 24 is closed based on the explanation provided to the verification team.
FAR 01(remained open from the previous verifications). The previous verification reports contain the information that monitoring activities including data collection procedures, QA & QC procedures are written down in the project Monitoring Manual. However, no such document was provided to BVC during site-visit, thus the issue is raised: Please, provide for review the updated project Monitoring Manual, if available.		The monitoring manual was provided, however it was not signed yet by the project participants as the transferring system of the monitoring data from cogeneration units to internet database is yet not accomplished. The other procedures described in monitoring plan are fully performed by project participants.	Remains open pending the subsequent verification.