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"

2nd periodic

REPORT NO. UKRAINE-VER/0199/2010

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-ver/0199/2010

VERIFICATION REPORT

Date of first issue: 18/05/2011	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 2nd periodic verification for the period from 01 April 2010 to 28 February 2011 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 Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of 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 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 Actions Requests, Forward Actions Requests (CR, 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 135397 tons of CO_2eq for the monitoring period from 01/04/2010 to 28/02/2011.

Our opinion relates to the project's 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/0199/2010	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: Ivan Sokolov Team Member, Technical Specialist: Igor Antipko Team Member, Financial Specialist: Denis Pishchalov	
Work reviewed by: Leonid Yaskin - Internal Technical Reviewer Nikolay Chekhmestrenko – Technical Specialist	
Work approved by: Flavio Gomes – Operational Manager	

Date of this revision:	Rev. No.:	Number of pages:
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Abbreviations

AIE	Accredited Independent Entity
BVC	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CH_4	Methane
CL	Clarification Request
CMM	Coal Mine Methane
CO_2	Carbon Dioxide
DVM	Determination and Verification Manual
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Green House Gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
MP	Monitoring Plan
MR	Monitoring Report
DFP	Designated Focal Point
NMHC	Non methane hydrocarbons
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change

1 INTRODUCTION

Public Joint Stock Company "Colliery Group "Pokrovske" has commissioned Bureau Veritas Certification 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.

The verification covers the period from 1st April 2010 to 28th February 2011.

1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity (AIE) 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

Verification scope is defined as an independent and objective review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions. The verification is based on the submitted monitoring report, the determined project design document including the project's baseline study, revised monitoring plan 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:

Ivan Sokolov

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Igor Antipko

Bureau Veritas Certification Team Member, Technical Specialist

Denis Pishchalov

Team Member, Bureau Veritas Certification Financial Specialist

This verification report was reviewed by:

Leonid Yaskin
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 1 of 10 March 2011, ver.2 of 08 April 2011, ver.3b of 21 April 2011, ver.4 of 12 May 2011 and ver.5 of 18 May 2011; revised Monitoring Plan versions 1 of 01 March 2011, 3 of 21 April 2011, 4 of 07 May 2011 and 5 of 18 May 2011 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 16/03/2011 Bureau Veritas Certification verification team conducted a visit to the project site (Public Joint Stock Company "Colliery Group "Pokrovske") and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Company "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", Eco-Alliance Ltd.	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: Carbon-TF B.V., Eco-Alliance Ltd.	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 AIE 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.

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 19 Corrective Action Requests, 12 Clarification Requests and 1 Forward 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 previous 1st periodic verification conducted for the period of 01/01/2008 – 31/03/2010 by TÜV SÜD one Forward Action Request was issued:
FAR 01. The outstanding project permission issued by the Ukrainian environmental authority has to be presented to the verifier at the next verification date.
As a response to the Clarification Request raised by BVC regarding this issue, the project participants provided the Conclusion No.17/1-14.06.10-00242 of State Environmental Examination dated 17/08/2010 issued by the Ministry of Environmental Protection of Ukraine. The Conclusion provides the positive opinion for the project and concludes its environmental permissibility. Based of the submitted documentation the FAR is considered to be closed.

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 No 2239/11/10-08, 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 coal mine “Krasnoarmeyskaya Zapadnaya № 1” for heat and power generation and for flaring.
The project has not been implemented as planned. In the considered monitoring period only one upgrade boiler and one flare were operational. Since the last verification the installation of the flare has been completed, the flare started operation on 26/10/2010. The installation of the

cogeneration units at Central Shaft is still in progress, and remained unfinished until the end of this monitoring period. The status of project activity implementation compared with the PDD is presented in the table below:

Table 2. Status of implementation including updated timetable for project component

Unit	**Planned installation date, as stated in the PDD**	**Implementation status and updated timetable**
Central Shaft		
upgraded boiler	Oct 2003	October 2003
flare No: 1	Jan 2008	1 flare with firing capacity of 25 MW installed in October 2010 (instead of 2 flares with capacity of 5 MW each as planned in PDD)
flare No: 3	Mar 2008	See above
cogeneration units	Jul 2008	6 cogeneration units are under installation; the commissioning is planned for July 2011
Degassing wells		
flare/pump No: 2	Jan 2008	delayed; the installation is planned for the end of 2011
flare/pump No: 7	Apr 2008	delayed; the installation is planned for the end of 2011
Air Shaft № 2		
flares No: 4-6	Apr 2008	delayed; the installation is planned for the end of 2011
cogeneration units (total firing capacity of 67,5 MW)	Jun-Oct 2008	delayed; the installation is planned for the end of 2011
cogeneration units (total firing capacity of 30 MW)	Jan 2009	delayed; the installation is planned for the end of 2011

As mentioned and evident from the table above, there were changes to the project's design as described in the PDD that occurred after the determination had been deemed final. The changes concern:

- number of flare unit installed at Central Shaft (one instead of two);

- firing capacity of installed flare (25 MW instead of 10 MW);
- delay of most project components installation,
- and change of the name of the coal mine where the project is being implemented.

The project participants presented the detailed description of all changes that have occurred and provide justification for these changes in the Annex 5 of the current Monitoring Report. The description and justification of the changes (within the Monitoring Report) was made publicly available via UNFCCC web-site (http://ji.unfccc.int/JI_Projects/DB/YR4PRAOOG6T3ZW 8YOTIKVC71RWLEAF/Monitoring/HSFJUMBUUIOCHFL9MVR8A8IQCI8086 /viewMonitoringReport).

The flare unit HOFGAS (manufacturer Hofstetter Umwelttechnik AG, type HOFGAS®-IFL4c 9000, max firing capacity 25 MW) was installed at Central Shaft instead of 2 flares KGUU 5/8 type, manufacturer Pro2 Anlagentechnik GmbH, with nominal capacity of 5 MW each as planned in the PDD. This was caused by the set of organization and technical factors, such as higher utilization volume of air-methane mixture of the HOFGAS flare, compact size of the unit and involvement of one contractor in flare unit (and other Cogeneration Station equipment) design, delivery and mounting.

Delay in installation of further project units (flares at degassing wells, flares and cogeneration units at Air Shaft No.2) is caused by lacking funds due to the global financial crisis and should follow in 2011.

As to the coal mine name, on 07/09/2010 it was changed from Joint Stock Company "Coal Company Krasnoarmeyskaya-Zapadnaya No 1 Mine" to Public Joint Stock Company “Colliery Group “Pokrovs’ke”. The PJSC “Colliery Group “Pokrovs’ke” is a full legal successor of the JSC "Coal Company Krasnoarmeyskaya-Zapadnaya No 1 Mine", thus identification (registration) number and domicile of the legal entity remained the same.

As per JISC “Procedures regarding changes during project implementation”, Version 1, Bureau Veritas Certification can confirm that the conditions defined by paragraph 33 of the JI guidelines are still met for the project, and that the changes do not alter the original determination opinion for the project. Specifically, BVC confirms that:
(a) The physical location of the project has not changed;
(b) The emission sources have not changed;
(c) Baseline scenario has not changed;
(d) The changes are consistent with the applied CDM methodology ACM0008 upon which the determination was prepared for the project.

The identified areas of concern as to the project implementation, project participants response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 01, CL 01, CL 02, CL 03).

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

The monitoring occurred in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website and revised monitoring plan ver.5 of 18/05/2011 which was positively determined in course of the current verification.

For calculating the emission reductions, key factors, such as availability and amount of extracted coal mine 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, equipment passports, the study of standardized emission factors for the Ukrainian electricity grid, sectoral standards, IPCC guidelines, laboratory analysis, are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are 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.

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 02, CAR 03, CAR 04, CL 04, CL 05).

3.5 Revision of monitoring plan (99-100)

In the course of considered monitoring period (01/04/2010 – 28/02/2011) 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 5 of 18/05/2011, contains detailed

descriptions of all the changes introduced and appropriate justification for these changes. The modifications are as follows:

1. The range of flare combustion efficiency has been changed due to the change of installed flare unit compared to PDD. The upper threshold was established at 1000 ^{0}C instead of 850 ^{0}C as in the original monitoring plan.

The manufacturer' specification on HOFGAS flare unit has been studied by the verification team. The flare type installed in the project uses a technology very similar to the originally planned flares and is designed to fulfill the German regulation for flaring landfill gas and CMM which prescribes the minimum efficiency of 99,9%. The German manufacturer Hofstetter AG claims the minimum flaring temperature at level of 1000℃, although a temperature of 850 ℃ was proved to be sufficient for CMM destruction. Therefore, this change is considered conservative and is found appropriate.

2. Formulas for calculation of methane amount destroyed through flaring (MD_{FL}), power (MD_{ELEC}) and heat (MD_{HEAT}) generation and for CMM capture in the project activity (CMM_{PJ}) were added; these were missing in the original monitoring plan.

The formulas are based on the applied monitoring methodology ACM0008 and their inclusion makes the monitoring plan more compliant with the applied methodology. This also improves the transparency of the project monitoring and accuracy to the monitoring plan.

3. The quality assurance and quality control procedures for parameters P5 (power consumption) and B46 (power production) were modified in respect of calibration interval of the power meters. The PDD indicates this as 2 years, but in fact it is not defined yet because these meters will be installed at the cogeneration station which is not commissioned yet.

Because of the fact that calibration interval of the power meters used for monitoring of power consumption and power production at the cogeneration station is not know for now in order to reflect current situation the information in the section D.2 of the Revised Monitoring Report was modified. The calibration interval will be determined upon cogeneration station commissioning on the basis of the meter manufacturer's specifications. This modification is considered reasonable as revised monitoring plan provides more accurate and up-to-date information compared to original one.

4. The project operational and management structure and underlying responsibilities were updated according to the current situation.

The described updated responsibilities under the project were confirmed during the verification; they reflect the changes in project design (e.g., the responsibilities of new flare provider were added) and present the

situation observed during the considered monitoring period and nowadays.

5. The formula for calculation of the project emissions from uncombusted methane has been updated; project emissions from flaring are presented as a separate parameter PE_{Flare} in updated formula. The formula for calculation of PE_{Flare} was adopted from "Tool to determine project emissions from flaring gases containing methane" and adjusted to fit the applied measuring/monitoring method better and to be applied to variable monitoring periods.

The revised formula for calculation of the project emissions from uncombusted methane now corresponds to the monitoring methodology ACM0008. It provides for more accurate calculation of project emissions from uncombusted methane.

6. The frequency of determination (calculation) of some monitoring parameters, which are cumulative values, (PE, BE, BE_{MR}, BE_{Use}, CMM_{PJ}, GEN, HEAT) was changed from annual to a monitoring period length.

The original monitoring plan in the PDD indicates that these parameters are to be calculated for the year y, however, the current monitoring period is shorter that a year. Therefore, in order to provide the possibility to calculate the emission reductions for the various monitoring periods the minor change to the description of parameters was done. This modification has mostly a specifying nature; no changes to project monitoring system or data recording were made. This change was found to be appropriate as it improves the accuracy of the monitoring plan. The existing project monitoring system provides for measurement of major monitoring input data with 15 min interval, thus calculation of the emission reduction on a monthly basis or even shorter period is possible.

7. A minor change in symbol name and description of the parameters B55 and B57 was made due to the inconsistent naming used in the original monitoring plan in the PDD.

The modification provides consistency in parameters' identification and better traceability. The changed names now are congruent with ACM0008.

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 the revision of monitoring plan, 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, CAR 10, CAR 11).

3.6 Data management (101)

The data and their sources, provided in the monitoring report, are clearly identified, reliable and transparent.

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 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 the Internet, called Graphic Data Manager RSG 40 Memograph M. The data is stored in the memory of computer for 6 months. Every month coal mine personnel save the data into 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.

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 12, CAR 13, CAR 14, CAR 15, CAR 16, CAR 17, CAR 18, CAR 19, CL 06, CL 07, CL 08, CL 09, CL 10, CL 11, CL 12, FAR 01).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 2nd periodic verification for the period from 01 April 2010 to 28 February 2011 of the "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya Zapadnaya № 1 Mine" project in Ukraine, which applies the methodology ACM0008 version 3. 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 monitoring reports, 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 and Verification Plan indicated in the final PDD version 04 and revised monitoring plan ver.5. The development and maintenance of records and reporting procedures are 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 5, for the reporting period from 01/04/2010 to 28/02/2011 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 01/04/2010 to 28/02/2011

For the period from 01/04/2010 to 31/12/2010

Baseline emissions	: 103054	t CO_2 equivalents;
Project emissions	: 12798	t CO_2 equivalents;
Emission Reductions	: 90256	t CO_2 equivalents.

For the period from 01/01/2011 to 28/02/2011

Baseline emissions	: 51390	t CO_2 equivalents;
Project emissions	: 6249	t CO_2 equivalents;
Emission Reductions	: 45141	t CO_2 equivalents.

Total for the period from 01/04/2010 to 28/02/2011:

Baseline emissions	: 154444	t CO_2 equivalents;
Project emissions	: 19047	t CO_2 equivalents;
Emission Reductions	: 135397	t CO_2 equivalents.

5 REFERENCES

Category 1 Documents:
Documents provided by the project participants 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 01/04/2010 till 28/02/2011 version 1 dated 10/03/2011
/3/	Monitoring Report for the period from 01/04/2010 till 28/02/2011 version 2 dated 08/04/2011
/4/	Monitoring Report for the period from 01/04/2010 till 28/02/2011 version 3b dated 21/04/2011
/5/	Monitoring Report for the period from 01/04/2010 till 28/02/2011 version 4 dated 12/05/2011
/6/	Monitoring Report for the period from 01/04/2010 till 28/02/2011 version 5 dated 18/05/2011
/7/	Revised Monitoring Plan version 1 of 01/03/2011
/8/	Revised Monitoring Plan version 3 of 21/04/2011
/9/	Revised Monitoring Plan version 4 of 07/05/2011
/10/	Revised Monitoring Plan version 5 of 18/05/2011
/11/	Calculation of Emission Reductions – excel file "ER-KAZ1-2010-04-01 to 2011-02-28_V1.xls", Version 1 of 10/03/2011
/12/	Calculation of Emission Reductions – excel file "ER-KAZ1-2010-04-01 to 2011-02-28.V3a.xls", Version 3a of 21/04/2011
/13/	Calculation of Emission Reductions – excel file "ER-KAZ1-2010-04-01 to 2011-02-28.V4.xls", Version 4 of 12/05/2011
/14/	Calculation of Emission Reductions – excel file "ER-KAZ1-2010-04-01 to 2011-02-28.V5.xls", Version 5 of 18/05/2011
/15/	Flare measuring data– excel file "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V1.xls", Version 1
/16/	Flare measuring data– excel file "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V3.xls", Version 3
/17/	Upgraded boiler measuring data– excel file "KAZ1-B1_Measuring_Data_2010-04-01 to 2011-02-28.V1.xls", Version 1
/18/	1st periodic verification report "CMM utilisation on the Joint Stock Company "Coal Company Krasnoarmeyskaya-Zapadnaya No1 Mine" No. 600500456, revision 04 of 26/11/2010
/19/	Letter of Approval of Ministry of Environmental Protection of Ukraine No 2239/11/10-08, issued on 22/02/2008
/20/	Approval of voluntary participation in a Joint Implementation Project of the Ministry of Economic Affairs of the Netherlands No 2008JI02, issued on 22/04/2008

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

/1/	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"
/2/	Methodological "Tool to determine project emissions from flaring gases containing methane"
/3/	Procedures regarding changes during project implementation, JISC22, Annex 2
/4/	Guidance on Criteria for Baseline Setting and Monitoring, version 02, JISC
/5/	ERU monitoring system, boiler house, photo
/6/	Logbook on utilized CMM calculation, ERU automated calculation system, Krasnoarmeyskaya-Zapadnaya #1 Mine, Eco-Alliance LLC.
/7/	Public Joint Stock Company «Colliery Group «Pokrovs'ke» Charter dated 07/09/2010
/8/	Certificate Series A01 #269688 on legal entity state registration, Public Joint Stock Company «Colliery Group «Pokrovs'ke»
/9/	Boiler #1 25/14, serial #46801, photo
/10/	Logbook on gas boiler, started 25/01/2011, Krasnoarmeyskaya-Zapadnaya #1 Mine
/11/	Shift register for the period since 11/01/2009 till 30/07/2009, Krasnoarmeyskaya-Zapadnaya #1 Mine
/12/	Gas analyzer type Polytron IREX, serial #ARSK-0191, passport
/13/	Passport on gas analyzer type Polytron IREX, serial #ARSK-0191
/14/	Certificate dated 30/04/2009 on acceptance of gas consumption flow-meter DRG.MZ -300, serial #06136
/15/	Certificate #2024 on pressure transmitter type Siemens Sitrans.P, serial # AZB/W5132862, valid till 08/10/2010
/16/	Passport on pressure transmitter type TSPU1-3, serial #09124
/17/	Data on calibration of gas consumption flow-meter DRG.MZ-200, serial #06135
/18/	Certificate #2025 on pressure transmitter type Siemens Sitrans.P, serial # AZB/ W4124010, valid till 08/10/2010
/19/	Statement dated 16/01/2011 on replacement of resistance thermometer Sitrans P/Z, serial #AZB/W4124010 by resistance thermometer Sitrans P/Z, serial #AZB/A2199938
/20/	Passport ААЭИ.405211.072-16 ПС on resistance thermometer TSPU 1-3NPt-100, serial #09124-09127
/21/	Statement dated 07/10/2010 on replacement of resistance

thermometer TSPU 1-3NPt-100, serial #09125 by resistance thermometer TSPU 1-3NPt-100, serial #09436

/22/ Operational journal of flare unit HOFGAS-IFL4c9000

/23/ Failure, interruption journal of HOFGAS-IFL4c9000 flare unit

/24/ Particular events journal of HOFGAS-IFL4c9000 flare unit

/25/ Parts substitution journal of HOFGAS-IFL4c9000 flare unit

/26/ Manual for flare unit HOFGAS-IFL4c9000 operators

/27/ Logbook of personnel training for HOFGAS-IFL4c9000 unit operation

/28/ List of personnel who underwent monitoring management training (HOFGAS-IFL4c9000 unit)

/29/ Cogeneration unit, photo

/30/ Flare unit operation manual

/31/ Passport 311.00.00.000ПС4 on vortex flow meter SVG.MZ1-400, serial #10144

/32/ Passport 311.04.00.000 ПС on gas flow meter DRG.MZ1-200-400

/33/ Operation manual 311.03.00.000РЭ on BVR.M flow calculation unit, serial #10512

/34/ Passport ААЛУ.405511.001-04ПС on measuring transformer MTM201D, serial #3401

/35/ Passport СПГК.5225.000.00ПС on pressure transmitter Metran-150TG2

/36/ Passport ААЛУ.41111.002ПС on measuring transformer MTM201D, serial #1595

/37/ Passport 5Э0.282.030ПС on resistance transmitter TSM-1088

/38/ Calibration Certificate oa gas analyzer NGA5 CH4/02, fabrication #4009.87

/39/ Operating instructions of Stationary Gas Analysing System NGA5 CH4/02, fabrication #11034

/40/ Acceptance certificate dated 13/09/2010 on thermocouple THAU-205, fabrication #7459...7468

/41/ Special license #4109 dated 14/11/2006 on mineral resources exploitation, issued by the Ukrainian Ministry of Ecology and Natural Resources

/42/ Special license #4784 dated 24/11/2008 on mineral resources exploitation, issued by the Ukrainian Ministry of Ecology and Natural Resources

/43/ Letter #10/264 dated 10/03/2010 on gas sample analysis results dated 26/02/2010

/44/ Statement #780 on delivery-acceptance of scientific and technical products according to the Agreement #1930910161 dated 22/08/2009

/45/ Certificate # ВЛ-001-2006 dated 08/12/2006 on attestation of Respirator SRIMRO measuring laboratories, valid till 07/12/2009, issued by the Ukrainian Ministry of Coal Industry

/46/ Protocol dated 20/03/2008 on consideration of contract #1099-2/2008 dated 21/03/2008

/47/ Form #3236 on approval of contract #1099-2/2008

/48/ Contract #1099-2/2008 dated 21/03/2008 on complex building

/49/ Statement dated 26/10/2010 of working committee on acceptance of finished building

/50/ Plan on monitoring (control) of gas consumption and flare unit utilized methane amount at the object “Energetic blocks at gas production cogeneration modules base for Public Joint Stock Company “Colliery Group “Pokrovske”, approved 01/11/2010

/51/ Annex 1, Scheme of gas preparation and measurement units system

/52/ Letter #11-124-04 dated 18/10/2010 requiring the access to flare unit operation web-site information

/53/ Information on the building stage of cogeneration gas reciprocating electricity station Public Joint Stock Company «Colliery Group «Pokrovs’ke»

/54/ Annex #2, Data of CMM utilization at the main mine site of colliery group for November-December 2010 in comparison to the same period in 2009

/55/ Annex #3, Data of CMM utilization at the flare unit for January-February 2010

/56/ Certificate #0077 on pressure transmitter type Siemens Sitrans.P, serial #AZB/W5132862, valid till 25/01/2012

/57/ Passport ААЭИ.405211.398-07 ПС on resistance thermometer TSPU 1-3NPt-100, serial #09434-09438

/58/ Transmitter type Siemens Sitrans.P, serial #AZB/W5132862

/59/ Resistance thermometer TSPU 1-3NPt-100, serial #09124

/60/ Installation scheme including metering positions, Coal Mine “Krasnoarmeyskaya-Zapadnaya #1”

/61/ Installation scheme including metering positions, Coal Mine “Krasnoarmeyskaya-Zapadnaya #1”, flare

/62/ Statement on acceptance of building works for February 2011

/63/ Statement on acceptance of building works for epy period since 01/02/2011 till 28/02/2011

/64/ Agreement #21 dated 24/12/2009 on technical equipment calibration

/65/ Percentage composition of gas samples, gathered 21/02/2011 from mining output at Public Joint Stock Company «Colliery Group «Pokrovs’ke»

/66/ Percentage composition of gas samples, gathered 21/02/2011 from mining output at Public Joint Stock Company «Colliery Group

«Pokrovs'ke»

/67/ Certificate #ВЛ-001-2009 dated 10/12/2009 on attestation of Respirator SRIMRO as a measuring laboratory, valid till 07/12/2009, issued by the Ukrainian Ministry of Coal Industry

/68/ Operating manual 2.556.081-02РЭ on paperless registration unit Memograph-M

/69/ Passport on thermal transducer with consistent output TSMU-055, TSMU -205, TSPU -055,

TSPU -205, THAU-055,

THAU -205, THKU-205

/70/ Acceptance certificate on thermal transducer with consistent output THAU-205, serial #CH8712

/71/ Characteristics of HOFGAS-Efficiency/ CFM4c and IFM4c high temperature flares, issued by Hoftetter Umwelttechnik AG

/72/ Statement on flare emission and efficiency of combustion of HOFGAS flare units, issued by Hoftetter Umwelttechnik AG

/73/ Certificate #2025, valid till 08.10.2010 on Pressure transmitter Siemens Sitrans.P, serial #AZB/W4124010

/74/ Passport #1595 on Pressure transmitter МТМ700ДИ-Ex, serial #1595

/75/ Personnel training on Hofgas-IFL4c 9000 operation («Colliery Group «Pokrovske»)

/76/ Certificate dated 10/12/2009 on attestation of Respirator SRIMRO measuring laboratories, valid till 09/12/2014, issued by the Ukrainian Ministry of Coal Industry

/77/ JI Project Monitoring manual

/78/ Letter #1261/3 dated 16/09/2008 from Certification Testing Centre of Heating Equipment

/79/ Official instruction #16 dated 02/03/2011 on flare monitoring data collection and storage

/80/ Official instruction #20 dated 23/03/2011 on measuring equipment records keeping

/81/ Clarification on steam pressure sensor prepared by Deputy Director of Eco-Alliance P.Shelegeda

/82/ Documents (statements of work acceptance, payment records etc.) confirming costs spent on flare unit installation

/83/ Environmental Impact Assessment for the project prepared by "Sinapse" Private Scientific and Production Enterprise, Kyiv, 2008

/84/ Manual on establishment of communication via interface RS232/485 for the Flow Calculation Unit BVR.M (version PO 002)

/85/ Data on power consumption by the Hofgas flare unit

/86/ Scientific and environmental expert assessment of the project "Energetic blocks on the basis of gas production cogeneration modules for JSC "Coal company "Krasnoarmiyska Zakhidna #1",

dated 14/07/2010

/87/ Conclusion No.17/1-14.06.10-00242 of the State Environmental Examination dated 17/08/2010 for the project "Energetic blocks on the basis of gas production cogeneration modules for JSC "Coal company "Krasnoarmiyska Zakhidna #1" issued by the Ministry of Environmental Protection of Ukraine

/88/ Positive Conclusion #30 of the complex state examination on the working project "Energetic blocks on the basis of gas production cogeneration modules for JSC "Coal company "Krasnoarmiyska Zakhidna #1" dated 23/09/2010

Persons interviewed:

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

/1/ Yevgen Khalimendikov– 1st Deputy General Director, Chief Engineer of PJSC "Colliery Group "Pokrovske"

/2/ Dmytro Trishkin– Deputy General Director on Law of PJSC "Colliery Group "Pokrovske"

/3/ Yakiv Artyuhov– Head of the heating department of PJSC "Colliery Group "Pokrovske"

/4/ Artem Dmytryk – Head of the cogeneration department of PJSC "Colliery Group "Pokrovske"

/5/ Oleksandr Korniyenko – Mechanic of the cogeneration department of PJSC "Colliery Group "Pokrovske"

/6/ Dmytro Kozhemyakin – Head of the department on energetics of CJSC "Donetskstal"

/7/ Kasyanov V. – Managing Director of "Eco-Aliance" Ltd.

/8/ Shelegeda P. – Deputy Director of "Eco-Aliance" Ltd.

/9/ Avtonomov V. – Monitoring Assistant of "Eco-Aliance" Ltd.

/10/ Didenko A. – Monitoring Assistant of "Eco-Aliance" Ltd.

APPENDIX A: PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

VERIFICATION PROTOCOL

Table 1. 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 (see chapter 7 References in the verification report); 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?	The project has not been implemented as planned in the PDD. There were changes to project design that occurred after the determination had been deemed final. First of all, there was a delay in implementation of almost all project units, except upgrade boiler which	CAR 01 CL 01 CL 02	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		started its operation in October 2003 as scheduled in the PDD. Other project activities were delayed because of lacking of funds due to the global financial crisis. Further changes related to the number of flares installed at Central Shaft, firing capacity of the installed flare and change of the name of the coal mine where the project is being implemented. Instead of 2 flares with firing capacity of 5 MW each as per PDD one bigger flare with firing capacity of 25 WM was installed at Central Shaft; the characteristics of the installed flare are as follows: - flare equipment installation general contractor: Sinapse Private Scientific and Production Enterprise; - manufacturer: Hofstetter Umwelttechnik AG; - type: HOFGAS®-IFL4c 9000; - capacity: max. 9,000 m^3/h gas (20-40% CH4), max 25 MW firing capacity; - operation starting date: 26/10/2010. As to the renaming of the coal mine, which is also a project participant, on 07/09/2010 the name of the Joint Stock Company "Coal Company Krasnoarmeyskaya-Zapadnaya No 1 Mine" was changed to the Public Joint Stock Company “Colliery Group “Pokrovske”. The identification (registration) number and domicile of the legal entity remained unchanged. As to the emission reductions achieved, they are much		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		lower than those planned in the PDD; however, this deviation was not explained in the MR ver.1. **CAR 01**. Please, provide comparison of the planned in the PDD and actually achieved values of emission reductions, and explain the deviation. Because of the project design change the clarification is needed as to the project's additionality: **CL 01.** Due to the fact that there were some changes in project implementation, namely the flare equipment of higher capacity was installed, please, provide evidences (e.g., investment analysis calculation) that the changes introduced do not affect the project's additionality. During the previous 1st periodic verification performed by AIE TUV SUD the FAR was issued: "FAR 01: The outstanding project permission issued by the Ukrainian environmental authority has to be presented to the verifier at the next verification date". In this respect, the CL was raised by BVC verification team: **CL 02**. Please, present the answer and the corresponding documentation to FAR 1 issued at the previous verification by TUV SUD.		
93	What is the status of operation of the	There was delay in project implementation as	CL 03	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	project during the monitoring period?	scheduled in the PDD caused by lacking funds due to the global financial crisis. During the given monitoring period only one upgrade boiler and one flare were operational. The upgraded boiler has been 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 is in progress and remained unfinished until the end of this monitoring period. The installation of further project units (flares at degassing wells, flares and cogeneration units at Air Shaft No.2) should follow in 2011. The status of project activity implementation compared to the PDD is presented in the section A.6 of the Monitoring Report. However, some additional information is need as to the implementation status of delayed project components, so the CL was issued: **CL 03**. More detailed information should be provided as to the implementation status of the activities which are delayed, i.e., please, describe what measures have already been undertaken in respect of delayed installations.		
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 monitoring occurred in accordance with the PDD regarding which the determination has been deemed final with some changes presented in the revised monitoring plan which was positively determined in	CAR 02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the UNFCCC JI website?	course of the current verification (for further information refer to cl.99 (a) – 99 (b) of this protocol). There is a deviation from the revised monitoring plan in the MR ver.1, therefore the CAR is raised: **CAR 02.** Due to the fact that monitoring plan was revised, the project monitoring as well as GHG emission reduction calculation must be performed according to the Revised Monitoring Plan, however, the information on project parameters monitoring in the MR ver.1 does not correspond fully to the Revised Monitoring Report ver.1. Not all parameters are described (e.g., flare temperature), the tables (table-6, table-7) with monitoring parameters contain references to the formulas in PDD, the description of parameter CMMpj and its formula does not correspond to the revised monitoring plan etc. Please, make the MR consistent with the final version of the revised monitoring plan.		
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) of the DVM, 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	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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriate?			
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	All the data sources used for calculating emission reductions are clearly identified, reliable and transparent. They are listed in the revised monitoring plan and MR sections B.1.2, B.2.1, B.2.2. The data sources used in the present monitoring period include: - direct measurement of the CMM amount sent to the flare and the boiler, heat generation by the project, methane concentration and the flare flame temperature performed with appropriate calibrated measurement equipment (flow meter, pressure transmitter, resistance temperature meter etc.); - laboratory analysis of NMHC concentration in the extracted gas; - IPCC data for efficiency of methane destruction/oxidation in the power and heat plants, carbon emission factor for combusted methane, methane GWP, emission factor for fuel (coal) used for captive power or heat; - equipment specification (boiler passport) for energy efficiency of coal fired heat plant.	OK	OK
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, such as carbon emission factor for combusted methane and CO_2 emission factor of fuel used for captive power or heat, are selected by carefully balancing accuracy and reasonableness, and are appropriately justified of the	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		choice. Both factors were taken from IPCC Guidelines.		
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. The continuation of situation exciting before project implementation, namely venting of the CMM into the atmosphere, heat generation with the existing coal fired boilers, and the full purchase of electricity from the grid, was proven in the determined PDD to be the most plausible scenario. The results of emission reduction calculation are presented in the MR as a totals for 9 months of 2010 and 2 months of 2011, although they should be provided by emission sources; thus, the CAR was issued: **CAR 03.** In the MR, please, provide calculation of project and baseline emissions and emission reduction by sources. Also, the total value of emission reduction does not correspond to the respective values for 2010 (01.04.2010-31.12.2010) and 2011 (01.01.2011-28.02.2011) in the MR. The same applies to the methane amount utilized (see section A.3, table 1). Apparently, this occurs due to rounding of values in the Excel spreadsheets, still the values for 2 periods and sum for the whole period must be arithmetically	CAR 03 CAR 04 CL 04 CL 05	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		consistent. **CAR 04.** In the MR the totals of emission reductions and methane amount utilized are not consistent with relevant values for 2 sub-periods. Please, correct. The PDD states that the electric power consumption by the flare unit is negligible and is not taken into account. Due to the fact that flare installed differs from the one planned in the PDD, the clarification on power consumed is needed: **CL 04**. Please, provide the information on amount of electric power consumed by the installed flare unit. Also, please, justify why this value is considered negligible and is not accounted in the emission reduction calculation. Some information in Excel file with flare measurement data should be clarified: **CL 05**. In the Excel file "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V1" with flare measurement data it is stated that Flow CH4 till 31.01.11 was recalculated. Please, clarify this.		
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
Applicable to bundled JI SSC projects only				
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 the present monitoring period the original monitoring plan described in the registered PDD version 04 was modified by the project	CAR 05 CAR 06 CAR 07	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		participants. The project participants submitted for determination the Revised Monitoring Plan ver.1 of 01/03/2011, which was reviewed by the verification team and the following issues were raised: **CAR 05**. In the Revised Monitoring Plan, please, list **all** the revisions, provide the justification of all proposed revisions to the monitoring plan and confirm whether the proposed revision improves 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 (see CARs below). **CAR 06.** Please, justify the energy efficiency of the old coal heat plant of 91% stated in the Revised Monitoring Plan and MR, as it differs from efficiency of 73,5% indicated in the PDD. This deviation is also needs to be indicated as one of the changes to the monitoring plan in the PDD. **CAR 07**. The Revised Monitoring Plan, ver.1, in its Annex 2 contains the flare equipment description and justification of the combustion efficiency of the chosen flare which is the same as in the PDD. However, the installed flare is different from the one envisaged in the PDD. In this regard, please, provide in the revised monitoring plan as well as in the monitoring report	CAR 08 CAR 09 CAR 10 CAR 11	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		actual information on flare installed. Also, please, provide the justification of the combustion efficiency applied for the actually installed flare unit. **CAR 08.** Regarding QC & QA Procedures described in the section D.2 of the Revised Monitoring Plan some deviations from PDD were identified which are not listed as revisions, namely the calibration intervals of meters used for power consumption (P5) and power production (B46) monitoring in the Revised Monitoring Plan differs from the calibration interval in the PDD (1 year vs. 2 years in the PDD). Please, describe this change in the relevant section of the Revised Monitoring Plan. **CAR 09**. In the Revised Monitoring Plan some deviations from the PDD concerning operational and management structure of the project (D.3) were identified which are not listed as revisions and justified appropriately: a. Eco-Alliance instead of plant manager in the PDD is identified as responsible for data base administration, verification of data, checkups for plausibility and errors etc; b. Demeta GmbH was excluded from the management and operation structure and its responsibilities were taken over by Eco-Alliance; c. The responsibilities for service and maintenance of		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		the project units were changed; the company Sinapse was assigned responsible for maintenance and service of the flare and cogeneration units; d. Project management structure presented on the figure D-1 was revised; new roles and responsibilities added. All these and any other changes must be described and appropriately justified (see CAR regarding justification of monitoring plan revisions). **CAR 10**. In the Revised Monitoring Plan the project monitoring parameters PE, PE_{ME}, PE_{MD}, PE_{UM} and baseline parameters BE, BE_{MR}, BE_{Use} have different recording frequency while it should be consistent for all of this parameters. Please, correct. **CAR 11**. The parameter MM_i is used in the baseline emission calculation in the formula (14a) in the Revised Monitoring Plan ver.1 but it is not described in the table D.1.1.3. Please, add the description of the parameter in the relevant table. Please, also specify what is implied under *unit **i*** in the formula (14a).		
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing	The proposed changes presented in the revised monitoring plan improve accuracy and applicability of the collected information compared to the original monitoring plan in the PDD. The conformity with the	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	conformity with the relevant rules and regulations for the establishment of monitoring plans?	relevant rules and regulations for the establishment of the monitoring plans remains unchanged as well as the conservativeness of the approach to the emission reductions calculations. Although, some issues related to the revised monitoring plan were identified. See 99 (a) above.		
Data management				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	The implementation of data collection procedures is in accordance with the PDD and revised monitoring plan, including the quality control and quality assurance procedures. The previous verification report contains 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: **CL 06**. Please, provide for review the project Monitoring Manual. As to the QA/QC procedures for NMHC analysis, the accreditation status of the respective laboratory during the whole monitoring period should be proved: **CL 07**. Please, submit the accreditation certification of the laboratory that undertook the NMHC analysis of the captured gas. Note, that lab's accreditation validity	CL 06 CL 07 CL 08 CL 09	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		during the whole monitoring period must be confirmed. The MR indicated that all monitoring data for flare is stored in the internal memory and send to an Internet-based server. Further information on this is needed: **CL 08**. Please, clarify for what time period the monitoring data for the flare are available at the Internet data base. Also, please, provide the information on Internet-based server security. In the MR (section C.3) it is described that Eco-Alliance executes different kinds of audits and control measures, including services audits, electronic data storage, back-ups, plausibility checks of data from web-site, regular reports etc. However, onsite interviews revealed that not all project equipment is covered by these activities of Eco-Alliance, especially it relates to the flare unit (e.g. back-ups of flare monitoring data is performed by coal mine personnel but not Eco-Alliance). In this regard, the CL was raised: **CL 09**. Please, provide clear explanation on QA/QC measures (internal audits, control measures and reporting) performed for each project unit (boiler, flare, cogeneration units as planned) and related responsibilities for such measures.		
101 (b)	Is the function of the monitoring	The measurement equipment used for project	CAR 12	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	equipment, including its calibration status, in order?	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: **CAR 12**. Calibration frequency of some measuring equipment is not indicated (section B.1.2, Table-4 of the MR). Please, provide information on calibration frequency for all equipment used in project monitoring. **CAR 13**. In the list of monitoring equipment used it should be clearly indicated for each gauge/parameter where it is installed, i.e., data for which unit (flare, boiler etc.) is measured by each particular meter. **CAR 14**. For ceramic pressure pick-up used for steam pressure measurements (ID 8) the installation date of the meter that was in the operation before replacement in January 2011 (serial number AZB/W 4124010) must be indicated. Please, provide the information about last calibration of both meters. **CAR 15**. Please, indicate in the MR a serial number and last calibration dated for the Vortex flow meter used for measuring of CMM amount to flare (ID 10). Last calibration date must be indicated for flow calculation unit as well.	CAR 13 CAR 14 CAR 15 CAR 16 CAR 17 CAR 18 CAR 19	OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 16. Information on data measured by some of the gauges listed in the Table-4 of the MR is absent (e.g., IDs 11, 12, 15). Please, include the missing data. **CAR 17**. Please, indicate last calibration date for monitoring equipment with IDs 11 and 17. **CAR 18**. During site visit it was revealed that exhaustive pressure transmitter MTM700DI-Ex, ser. number 1595, is used for monitoring on the flare unit, however, it is not mentioned in the monitoring equipment list in the MR. Please, provide details on this gauge. **CAR 19**. Please, provide clarification and include the respective information in the MR on the method used for steam and CMM temperature measurement which is referred as PT-100 in the MR.		
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 are stored in paper or/and electronic formats. In the section C.1.1 of the MR it is stated that the overview calculation about the methane amount utilized are made on a monthly and yearly basis and notified in the journal, however, during site visit it was revealed that no such journal is available.	CL 10 CL 11 FAR 01	OK OK FAR 01 will be checked during next verification.

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 10. Please, correct/clarify the information about the journal where emission reduction calculation results are notified and specify who performs such overview calculations. The interviews conducted during site visit demonstrated that monitoring records storage time is not clearly established and known by all responsible personnel. So, the CL was issued: **CL 11**. Please, provide a documented instruction on monitoring data storage. Also, not all calibration certificates for those meters which were replaced during monitoring period were available. Thus, the FAR was raised: **FAR 01.** The evidences (e.g., calibration certificates) of the due calibration status of all meters used in the project monitoring during the whole monitoring period (including those which were replaced in course of the monitoring period) must be kept and made available upon request; the records confirming the meters replacement, if applicable, are to be maintained as well.		
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 effectiveness of the existing management and	CL 12	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		operational systems and found them eligible for reliable project monitoring. However, the MR and revised monitoring plan do not contain the information on the responsibilities of flare equipment provider Sinapse, thus the CL was issued: **CL 12**. Please, clarify whether the company Sinapse, the provider of flare equipment and flare monitoring system, is involved in project monitoring. If yes, what maintenance or monitoring activities are performed by Sinapse?		
Verification regarding programs 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 findings in writing?	N/a	N/a	N/a
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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.s 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 clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01. Please, provide comparison of the planned in the PDD and actually achieved values of emission reductions, and explain a deviation.	92	*Response #1:* The MR has been extended. *Response #2:* The MR has been corrected.	*Conclusion on response #1:* The values of achieved emission reduction presented in the table D.3.1 are not consistent with values indicated in other sections of MR ver.3b and ERUs calculation Excel file. Please, provide updated values. *Final conclusion:* The values in the table D.3.1 are now consistent with the Excel file and other sections of the MR. The CAR is closed.

CAR 02. Due to the fact that monitoring plan was revised, the project monitoring as well as GHG emission reduction calculation must be performed according to the Revised Monitoring Plan, however, the information on project parameters monitoring in the MR ver.1 does not correspond fully to the Revised Monitoring Report ver.1. Not all parameters are described (e.g., flare temperature), the tables (table-6, table-7) with monitoring parameters contain references to the formulas in PDD, the description of parameter CMMpj and its formula does not correspond to the revised monitoring plan etc. Please, make the MR consistent with the final version of the revised monitoring plan.	94	*Response #1:* MR and Revised MP have been modified. The MR is now consistent with the Revised MP. *Response #2:* The MR and calculations have been corrected are now consistent with the revised MP. *Response #3*: The corrected Excel file is attached, see ER-KAZ1-2010-04-01 to 2011-02-28.V5.xls	*Conclusion on response #1:* 1) Formulas used for calculation of project emission and parameter PE_{MD} in the Excel spreadsheet do not correspond to the revised MP. Please, make calculations consistent. 2) In the table 10, section D.1 of the MR, please, correct the name of the parameter B14 CMMpj according to the revised MP. *Conclusion on response #2:* The CMMpj parameter name in the MR is now consistent with the revised MP. Formulas in the Excel file still do not correspond to the revised MP. *Final conclusion:* The ERU calculation Excel spreadsheet was modified appropriately. The calculation of project emission is now in accordance with the revised MP. The issue is closed.

CAR 03. In the MR, please, provide calculation of project and baseline emissions and emission reduction by sources.	95 (d)	*Response #1:* The calculation has been included in the MR under D.3. *Response #2:* The title for the section D.3.4 has been provided.	*Conclusion on response #1:* The values of project and baseline emissions and emission reductions are presented by sources, which are in accordance with PDD. Please, provide the title of the section D.3.4 (pg.20) in the MR. *Final conclusion:* All required corrections were made. The issue is closed.
CAR 04. In the MR the totals of emission reductions and methane amount utilized are not consistent with relevant values for 2 sub-periods. Please, correct.	95 (d)	*Response #1:* The values have been corrected in the Excel sheet. *Response #2:* The MR has been corrected.	*Conclusion on response #1:* The emission reduction totals are now consistent with value for 2 sub-periods. But the values in the table 1 (A.3, pg.2) were not corrected. *Final conclusion:* The appropriate amendment was made; the issue is closed.

CAR 05. In the Revised Monitoring Plan, please, list **all** the revisions, provide the justification of all proposed revisions to the monitoring plan and confirm whether the proposed revision improves 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 (see CARs below).	99 (a)	All revisions have been summarized under Annex 3 of the Revised Monitoring Plan.	All changes introduced are listed, described and justified appropriately in the Annex 3 of the revised MP. The proposed revision 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 CAR is closed.
CAR 06. Please, justify the energy efficiency of the old coal heat plant of 91% stated in the Revised Monitoring Plan and MR, as it differs from efficiency of 73,5% indicated in the PDD. This deviation is also needs to be indicated as one of the changes to the monitoring plan in the PDD.	99 (a)	The Revised MP has been corrected, 73.5% is the right value from the previous coal boiler, as stated in the boiler passport, and the right value for the calculation of the displaced CO_2 reduction (coal displacement). Also the ER-Calculation has been corrected. 91% is a copy-paste error.	The clarification and subsequent corrections were found appropriate. The CAR is closed.

CAR 07. The Revised Monitoring Plan, ver.1, in its Annex 2 contains the flare equipment description and justification of the combustion efficiency of the chosen flare which is the same as in the PDD. However, the installed flare is different from the one envisaged in the PDD. In this regard, please, provide in the revised monitoring plan as well as in the monitoring report actual information on flare installed. Also, please, provide the justification of the combustion efficiency applied for the actually installed flare unit.	99 (a)	The justification of the flare efficiency under Annex 2 describes not a specific flare but general requirements for flares complying regulation of the German TA-Luft. Multiple flare types meet these criteria and can be utilised. The flare type installed in the project uses a technology very similar to the originally planned flares and is in tune with the justification in Annex 2. A statement from the manufacturer, which confirms the fulfilment of the regulations has been provided to BV.	The provided flare documentation and updated information in the revised MP and MR were reviewed and found to be appropriate. The issue is closed.

CAR 08. Regarding QC & QA Procedures described in the section D.2 of the Revised Monitoring Plan some deviations from PDD were identified which are not listed as revisions, namely the calibration intervals of meters used for power consumption (P5) and power production (B46) monitoring in the Revised Monitoring Plan differs from the calibration interval in the PDD (1 year vs. 2 years in the PDD). Please, describe this change in the relevant section of the Revised Monitoring Plan.	99 (a)	*Response #1:* The calibration interval is 4 years according to the information given by the manufacturer. This value has been inserted in the Revised MP. *Response #2:* The mistake was made in determining of the calibration interval for parameters P5 and B46. As these parameters concern the measuring equipment for cogeneration station which is not commissioned yet the calibration interval will be later determined by the manufacturer. Thus, the revised MP has been modified accordingly.	*Conclusion on response #1:* In the revised MP ver.3, section D.2, 1 year is still indicated as calibration interval for parameters P5 and B46. Please, correct. The documented evidences confirming the indicated calibration interval of 4 years must be provided. *Final conclusion:* Because of the fact that parameters P5 and B46 relate to the cogeneration station which is under installation and the relevant power meters have not been installed yet, the calibration intervals are not defined. The appropriate amendments were made to the revised MR. The issue is closed based on information provided and due corrections made.

CAR 09. In the Revised Monitoring Plan some deviations from the PDD concerning operational and management structure of the project (D.3) were identified which are not listed as revisions and justifiев appropriately: a. Eco-Alliance instead of plant manager in the PDD is identified as responsible for data base administration, verification of data, checkups for plausibility and errors etc; b. Demeta GmbH was excluded from the management and operation structure and its responsibilities were taken over by Eco-Alliance; c. The responsibilities for service and maintenance of the project units were changed; the company Sinapse was assigned responsible for maintenance and service of the flare and cogeneration units; d. Project management structure presented on the figure D-1 was revised; new roles and responsibilities added.	99 (a)	*Response #1:* a. Eco-Alliance is responsible for: data base administration, verification, checkups for plausibility and errors, archiving and back-ups of data taken at boiler house; calibration of the meters installed in boiler house. b. Sinapse is responsible for: maintenance and service of the flare and cogeneration units; maintenance and adjustment of the monitoring system Graphic Data Manager RSG 40 Memograph M. c. Demeta GmbH was excluded from the management and operation structure and its responsibilities were taken over by Eco-Alliance. *Response #2:* The required modifications were made.	*Conclusion on response #1:* The mentioned deviation was described and justified by project participant in the revised MP ver.3. The project responsibilities have been adapted to the current situation. Still, there is a minor difference between project management structure presented on fig.D-1 in the revised MP and fig.1 in the MR: Sinapse is indicated in the MR's organigram. Please, make the management structure consistent in MR and revised MP. *Final conclusion:* The issue is closed based on due correction made.

All these and any other changes must be described and appropriately justified (see CAR regarding justification of monitoring plan revisions)			
CAR 10. In the Revised Monitoring Plan the project monitoring parameters PE, PE_{ME}, PE_{MD}, PE_{UM} and baseline parameters BE, BE_{MR}, BE_{Use} have different recording frequency while it should be consistent for all of this parameters. Please, correct.	99 (a)	The Revised MP has been corrected.	The information regarding parameters' recording frequency is now consistent. The CAR is closed.
CAR 11. The parameter MM_i is used in the baseline emission calculation in the formula (14a) in the Revised Monitoring Plan ver.1 but it is not described in the table D.1.1.3. Please, add the description of the parameter in the relevant table. Please, also specify what is implied under *unit* ***i*** in the formula (14a).	99 (a)	The Revised MP has been corrected. The formulae are now congruent.	The modification done to the formula 14 (a) was found reasonable. The issue is closed based on due correction made.

CAR 12. Calibration frequency of some measuring equipment is not indicated (section B.1.2, Table-4 of the MR). Please, provide information on calibration frequency for all equipment used in project monitoring.	101 (b)	*Response #1*: Changes have been made in MR. *Response #2*: The MR has been corrected.	*Conclusion on response #1*: Please, indicate calibration frequency for measuring equipment with IDs 2a, 15, 17. *Final conclusion:* The calibration intervals were specified in the MR ver.3. The issue is closed.
CAR 13. In the list of monitoring equipment used it should be clearly indicated for each gauge/parameter where it is installed, i.e., data for which unit (flare, boiler etc.) is measured by each particular meter.	101 (b)	Changes have been made in MR. Refer to MR ver.3b.	The clarifying information was added to the list of monitoring equipment. The issue is closed based on due amendments made.

CAR 14. For ceramic pressure pick-up used for steam pressure measurements (ID 8) the installation date of the meter that was in the operation before replacement in January 2011 (serial number AZB/W 4124010) must be indicated. Please, provide the information about last calibration of both meters.	101 (b)	*Response #1:* Changes have been made in MR. Passport for ceramic pressure pick-up (serial number AZB/W 4124010) is attached, see "KZ-1 - Сименс преобразователь давления 2025.pdf" *Response #2:* The calculations were made for determining the steam pressure value depending on the temperature. The electronic data for December-January was taken and used with the formula of dependence. The undertaken analysis demonstrated that the measurement results of the old pressure transmitter AZB/W 4124010 during this period were understated which is conservative. The detailed clarification of the meter accurate measurement is attached, see: "KZ-10 -Разъяснения по поводу датчика давления шахтоуправление Покровское.rar"	*Conclusion on response #1*: The validity date of provided calibration certificate for the meter AZB/W4124010 is 08/10/2010. Thus, since 08/10/2010 till 16/01/2011 (when it was replaced) the meter had an expired calibration status. Please, clarify and provide evidences how the measurement accuracy of this meter was ensured during the mentioned period. *Final conclusion:* The provided clarification and supporting calculations were reviewed by the verification team and found appropriate. The issue is closed.
CAR 15. Please, indicate in the MR a serial number and last calibration dated for the Vortex flow meter used for measuring of CMM amount to flare (ID 10). Last calibration date must be indicated for flow calculation unit as well.	101 (b)	Changes have been made in MR. Vortex flow meter consists of 2 units: flow calculation unit BVR M and gas flow transmitter DRG MZ 200-400 which have different serial numbers.	The issue is closed based on information provided and amendments made to the MR.

CAR 16. Information on data measured by some of the gauges listed in the Table-4 of the MR is absent (e.g., IDs 11, 12, 15). Please, include the missing data.	101 (b)	Changes have been made in MR.	The missing information was provided in the MR ver.3b. The issue is closed.
CAR 17. Please, indicate last calibration date for monitoring equipment with IDs 11 and 17.	101 (b)	Changes have been made in MR.	The requested information was indicated in the table 4 (section B.1.2) of the MR. The CAR is closed.
CAR 18. During site visit it was revealed that exhaustive pressure transmitter MTM700DI-Ex, ser. number 1595, is used for monitoring on the flare unit, however, it is not mentioned in the monitoring equipment list in the MR. Please, provide details on this gauge.	101 (b)	Changes have been made in MR. The passport for exhaustive pressure transmitter MTM700DI-Ex is attached: “KZ-2 - MTM 700.pdf”	The provided information and supplement made to the MR were found sufficient. The issue is closed based on due corrections made.
CAR 19. Please, provide clarification and include the respective information in the MR on the method used for steam and CMM temperature measurement which is referred as PT-100 in the MR.	101 (b)	Changes have been made in MR.	As a method for CMM and steam temperature measurement a resistance thermometer was indicated. The issue is closed based on due corrections made to the MR.

CL 01. Due to the fact that there were some changes in project implementation, namely the flare equipment of higher capacity was installed, please, provide evidences (e.g., investment analysis calculation) that the changes introduced do not affect the project's additionality.	92	*Response #1:* There are installation costs for the big flare of 514,609.49 EUR, compared to 600,000 EUR cost estimation for two flares in the PDD. The big flare produced 3,893 t CO2eq in 2010, while the two small flares should have produced 123,916 t CO2eq per year (also for 2008 and 2009). It is obvious, that the big flare can not reach the results originally calculated for the two flares in the PDD - so that the additionality is still given. *Response #2:* Methane which is sent to the flare unit for utilization is a methane which remains after the utilization in boiler house, so the methane amount which is utilized by flare doesn't depend on the total amount of extracted methane but on the amount of remained gas. This was taken into account while planning for two small flares in PDD and can be applied for big flare also. Supporting documents concerning flare installation costs are attached ("KZ-11 - Costs for flare.rar")	*Conclusion on response #1:* The supporting documentation needs to be provided. *Final conclusion*: The provided documentation was reviewed. The project' Capex have changed insignificantly due to reduction of costs associated with installation of the less expensive flaring equipment. The cost of flaring equipment has been reduced from EUR 2 100 000 to EUR 1 114 609. Thereby Capex have been reduced by EUR 985,4k. Initial financial analysis attached to PDD showed that the project had the negative NPV of EUR -23 180,8k even with the discount rate equal to 0. Thereby reduction of CAPEX by the named amount will bring NPV to EUR -22 195,4k which is still negative value.

			The CMM utilization scheme remains unchanged as flares will burn the gas left after CHP and the boiler. Given there is no modifications applied impacting CHP or boiler capacity the revenues remain the same as per investment analysis. Thereby the additionality of the project remains intact.

CL 02. Please, present the answer and the corresponding documentation to FAR 1 issued at the previous verification by TUV SUD.	92	*Response #1:* There is a decision of the certification center that no permissions or certificates are needed for the Flare operation, see "KZ-6 - Decision.pdf" There is no extra permission for the upgraded boiler, there is a remark in the boiler journal, that the upgrade does not change the boiler safety and ecological impact. This has been shown to TUEV Sued. Also, see attached the project's environmental impact evaluation "KZ-12 - Общие данные и выводы ОВОС КГЭС К31.pdf" *Response #2:* The permission is attached ("KZ-14 - Permission.rar")	*Conclusion on response #1*: The FAR concerns permission for the project from Ukrainian environmental authority but not certification of equipment or environmental impact assessment. Please, clarify if any such environmental permission for the project has been issued since the last verification. *Final conclusion:* The Conclusion №17/1-14.06.10-00242 of State Environmental Examination dated 17/08/2010 issued by the Ministry of Environmental Protection of Ukraine was provided to the verification team. The positive opinion and environmental permissibility were concluded for the project. The issue is considered closed.

CL 03. More detailed information should be provided as to the implementation status of the activities which are delayed, i.e., please, describe what measures have already been undertaken in respect of delayed installations.	93	*Response #1:* For cogeneration units on the central shaft: - Six gas-piston cogeneration engines are assembled; - Six generators are installed on the bedding, ready for mounting; - Six heat-exchange aggregates with boilers-utilizers are mounted; - System of cogeneration units emergency cooling is mounted, etc. For Air Shaft #2 and degassing wells the project implementation is on the stage of calculating gas amount. *Response #2:* MR was corrected.	*Conclusion on response #1:* The provided information on cogeneration units implementation status was found sufficient. As to the flare unit there is an inconsistency in flare operation start date in the section A.6 of the MR. Please, make the information consistent. *Final conclusion:* The correction was made. The issue is closed.

CL 04. Please, provide the information on amount of electric power consumed by the installed flare unit. Also, please, justify why this value is considered negligible and is not accounted in the emission reduction calculation.	95 (d)	*Response #1:* The flare uses electric power only for the measurement units and the regulation of combustion air. The energy consumption is far lower then 1% of the gained emissions reduction and is negligible. *Response #2:* A calculation of the power amount consumed by the flare has been provided to BV. The additional CO2 production is far below 1% of the emissions reduction provided by the flare and is negligible (ACM0008): "CONSELEC-F1.xls"	*Conclusion on response #1:* Please, provide evidences confirming that energy consumption is lower than 1% (actual amount of electricity consumed by the flare unit must be provided). *Final conclusion:* The provided calculation of electricity consumption by the flare demonstrates that it is about 11 MW; and resulted emissions are proved to be lower than 1%. The issue is closed.

CL 05. In the Excel file "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V1" with flare measurement data it is stated that Flow CH4 till 31.01.11 was recalculated. Please, clarify this.	95 (d)	*Response #1:* There is no data "Flow CH4" available until 08.02.2011, 13:00. So we have recalculated the flow data from the cumulated data "ACC flow CH4, m3" for internal reasons. This does not affect the calculation of the ERU amount, as this calculation uses the cumulated data. *Response #2:* a) No data "Flow CH4" was available until 08.02.2011 because of software mistakes; b) The parameter has been used for internal plausibility checks only. The calculation of the ERU amount uses the cumulated data; c) "GAS_TOFLAREBVRM.G.A", "GAS_TOFLAREBVRM.G.B" and "GAS_TOFLAREBVRM.G.C" were taken from the manual of BVR.M and were used for calculating of the accumulated flow coal gas: "KZ-13 - Net_BVRM_v002.pdf" 2) A new version has been provided: "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V3.xls"	*Conclusion on response #1:* 1) In respect of "KAZ1-F1_Measuring_Data_2010-10-27 to 2011-02-28.V1" , please, clarify: a. why no data "Flow CH4" was available until 08.02.2011; b. what is the role of this parameter in project monitoring and is it used for determination of methane amount sent for flare (and thus in ERUs calculation); c. what data are represented under "GAS_TOFLAREBVRM.G.A", "GAS_TOFLAREBVRM.G.B" and "GAS_TOFLAREBVRM.G.C" [till 31/01/2011 these are deemed to be the input data based to which all other gas flow parameters are calculated]. 2) Because of the change in flame temperature ranges (1000 C instead of 850 C, please provide updated flare data measurement Excel file.

			Final conclusion: The provided documentation and clarification received were found appropriate. The issue is closed.
CL 06. Please, provide for review the project Monitoring Manual.	101 (a)	*Response #1:* Document is attached: "KZ-5 - Monitoring manual_en.pdf" *Response #2:* Demeta GmbH is indicated as one of the founders of Eco-Alliance in project structure on the fig. 1 of the Monitoring Manual.	*Conclusion on response #1:* Demeta GmbH is indicated in project structure on the fig.1 of the Monitoring Manual. Taking into account the fact that Demeta was excluded from the management and operation structure of the current project, please, consider revision the Monitoring Manual in respect of this change or provide respective clarification. *Final conclusion:* The issue is closed based on the clarification provided.
CL 07. Please, submit the accreditation certification of the laboratory which undertook the NMHC analysis of the captured gas. Note, that lab's accreditation validity during the whole monitoring period must be confirmed.	101 (a)	Accreditation certification is attached: "KZ-4 - Accreditation certification.jpg"	The attestation certification issued for measuring laboratory "Respirator" by the Institute "UKRNDIPROEKT" dated 10/12/2009, registration # ВЛ-001-2009, valid until 09/12/2014, was provided to the verification team. The accreditation is valid during the whole monitoring period. The issue is closed.

CL 08. Please, clarify for what time period the monitoring data for the flare are available at the Internet data base. Also, please, provide the information on Internet-based server security.	101 (a)	*Response #1:* The Internet data base is available from 10 March, 2011, 15:14. The server used for data storage is a coal mine server. The password is needed to look through the database. It's impossible to change data through the Internet without Memograph. *Response #2:* The MR was corrected.	*Conclusion on response #1:* If no Internet data base was available during monitoring period, the information in section B.3 of the MR must be corrected/clarified ("For the flare and the cogeneration units Sinapse has provided a system for data collecting, archiving and sending to Internet, called Graphic Data Manager RSG 40 Memograph M. The server data are send every 15 minutes to the server. The data is stored in the memory of computer for 6 months"). *Final conclusion:* The issue is closed based on due amendment made to the MR.

CL 09. Please, provide clear explanation on QA/QC measures (internal audits, control measures and reporting) performed for each project unit (boiler, flare, cogeneration units as planned) and related responsibilities for such measures.	101 (a)	*Response #1:* Eco-Alliance is responsible for plausibility checks of data from web-site, electronic data storage, back-ups and archiving of the data taken from the boiler house. For the flare and planned cogeneration units personnel of the coalmine's Cogeneration Section is responsible for data storage in handwritten journals, electronic data back-ups and archiving, plausibility checks of electronic data with handwritten journals. At the end of month personnel of the Cogeneration Section sends electronic data from the flare to Eco-Alliance. *Response #2:* The information was included in MR.	*Conclusion on response #1:* This information should be included into the MR. *Final conclusion:* The appropriate information was provided in the MR ver.3. The issue is closed.
CL 10. Please, correct/clarify the information about the journal where emission reduction calculation results are notified and specify who performs such overview calculations.	101 (c)	Changes have been made in MR. After installment of the ERU's automated accounted system there was no more need in such calculations in journal.	The issue is closed based on appropriate amendments made.

CL 11. Please, provide a documented instruction on monitoring data storage.	101 (c)	*Response #1:* Official instruction is attached ("KZ-8 - Official instruction.jpg"). The instruction was prepared on 02/03/2011 but was not provided to the verifiers during site-visit. *Response #2:* The procedure for all monitoring data storage has been indicated in the Monitoring Manual (see attached).	*Conclusion on response #1:* The instruction #16 of 02/03/2011 prescribes the procedures for collection and storage of monitoring data for the flare unit. The similar instruction for the boiler house needs to be provided. *Response #2:* The updated Monitoring Manual indicates the procedure for archiving of the all project monitoring data. The issue is closed based on the information provided.
CL 12. Please, clarify whether the company Sinapse, the provider of flare equipment and flare monitoring system, is involved in project monitoring. If yes, what maintenance or monitoring activities are performed by Sinapse?	101 (d)	*Response #1:* As the provider of flare equipment and flare monitoring system, Sinapse performs following activities: - Maintenance of the monitoring system; - Adjustment of the monitoring system. *Response #2:* The information was included in MR.	*Conclusion on response #1:* This information should be included into the MR. *Final conclusion:* The appropriate information was provided in the MR ver.3. The issue is closed.

FAR 01. The evidences (e.g., calibration certificates) of the due calibration status of all meters used in the project monitoring during the whole monitoring period (including those which were replaced in course of the monitoring period) must be kept and made available upon request; the records confirming the meters replacement, if applicable, are to be maintained as well.	101 (c)	Official instruction is attached ("KZ-9 - Official instruction 2.jpg")	The issue will be checked during next periodic verification.