



BUREAU
VERITAS

VERIFICATION REPORT

DTEK MINE KOMSOMOLETS DONBASSA, PUBLIC JOINT-STOCK COMPANY

VERIFICATION OF THE

“CMM UTILISATION ON THE JOINT STOCK
COMPANY NAMED KOMSOMOLETS DONBASSA
COAL MINE OF DTEK (DONBASSKAYA
TOPLIVNAYA ENERGETICHESKAYA KOMPANYA)”

3rd periodic
for the period 01/11/2010 – 30/06/2011

REPORT No. UKRAINE-VER/0312/2011

REVISION No. 02

BUREAU VERITAS CERTIFICATION



VERIFICATION REPORT

Date of first issue: 01/09/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: DTEK Mine Komsomolets Donbassa, Public Joint-Stock Company	Client ref.: Kostyantyn Vyaly
<p>Summary: Bureau Veritas Certification has made the 3rd periodic verification for the period from 01 November 2010 to 30 June 2011 of the "CMM utilisation on the Joint Stock Company named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)", JI Registration Reference Number 0079, project of DTEK Mine Komsomolets Donbassa, Public Joint-Stock Company located in Kirovske 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.</p> <p>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.</p> <p>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.</p> <p>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 100060 tons of CO₂eq for the monitoring period from 01/11/2010 to 30/06/2011 (24447 tons of CO₂eq for the period 01/11/2010-31/12/2010; 75613 tons of CO₂eq for the period 01/01/2011-30/06/2011).</p> <p>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.</p>	

Report No.: UKRAINE-ver/0312/2011	Subject Group: JI
Project title: "CMM utilisation on the Joint Stock Company named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)"	
Work carried out by: Team Leader, Lead Verifier: Igor Kachan Team Member, Verifier: Victoria Legka Team Member, Technical Specialist: Igor Antipko	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Dmytro Balyn - Technical Specialist	
Work approved by: Flavio Gomes – Operational Manager 	
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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
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
MP	Monitoring Plan
MR	Monitoring Report
NFP	National Focal Point
NMHC	Non methane hydrocarbons
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change



1 INTRODUCTION

DTEK Mine Komsomolets Donbassa, Public Joint-Stock Company has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “CMM utilisation on the Joint Stock Company named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)” (hereafter called “the project”) at Kirovske 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 November 2010 to 30th June 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 and/or corrective 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:

Igor Kachan
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Victoria Legka
Bureau Veritas Certification Team Member, Climate Change Verifier

Igor Antipko
Bureau Veritas Certification Team Member, Technical Specialist

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

Dmytro Balyn
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 DTEK Mine Komsomolets Donbassa PJSC 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, Clarifications on Verification Requirements 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 06 July 2011, ver.2 of 17 August 2011 and ver.4 of 23 August 2011, revised Monitoring Plan ver.2 of 03 February 2011 and ver.3 of 23 August 2011 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 14 July 2011 Bureau Veritas Certification verification team conducted a visit to the project site (DTEK Mine Komsomolets Donbassa PJSC) and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of DTEK Mine Komsomolets Donbassa PJSC and Eco-Alliance Ltd. were interviewed (see References). The main topics of the interviews are summarized in Table1.

Table 1 Interview topics

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



2.3 Resolution of Clarification, Corrective and Forward Action Requests

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

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

- (a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- (b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;
- (c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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

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

3 VERIFICATION CONCLUSIONS

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

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

The Clarification and Corrective 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, 4 Clarification Requests and 2 Forward Action Requests.

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

3.1 Remaining issues and FARs from previous verifications

There are no remaining FARs from previous verifications.

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 10822/11/10-07, issued on 03/10/2007. 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 No 2007JI04, issued on 26/11/2007).

The abovementioned written approvals are unconditional.

3.3 Project implementation (92-93)

The present JI project implies utilization of CMM from two suction systems of the coal mine Komsomolets Donbassa for heat and power generation and for flaring. According to the registered PDD ver.04 of 14/04/2008 with a purpose of CMM utilization one new gas boiler for heat generation, four flares for methane destruction, three new cogeneration units for combined power and heat production are planned to be installed and two old coal boilers should be upgraded with CMM burner systems for heat production. The new and the modified units are supposed to displace the main part of the heat generated by the old coal boilers and displace a part of the electricity purchased from the grid. The combustion of methane in the boilers and in the flares results in a significant emissions reduction.

During the 3rd monitoring period (01 November 2010 – 30 June 2011) only two upgraded boilers and two flares (No.3 and No.4) at the Air Shaft No.3 were operational. Installation of further units as stated in the PDD is delayed due to the Global Financial Crisis and lack of methane amount which has been caused by changes in the mining plan. Because of the



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incomplete implementation and delays in project implementation the coal mine, upon BVC's request, revised the project implementation schedule and provided the updated timeline for the delayed activities in the Monitoring Report.

The status of project activity implementation compared with the PDD is presented in the table below:

Table 1. Status of implementation including time table for project component

Unit	Planned installation date, as stated in the PDD	Implementation status
Central Shaft		
new boiler	Oct 2007	Delayed, planned for late 2011 or early 2012
flare No: 1	Sep 2007	Delayed, planned for late 2011 or early 2012
flare No: 2	Apr 2008	Delayed, planned for late 2011 or early 2012
Air Shaft № 3		
cogeneration unit 1	Sep 2008	Delayed, planned for the end of the 3 rd quarter of 2011
cogeneration unit 2	Sep 2008	Delayed, planned for the end of the 3 rd quarter of 2011
cogeneration unit 3	Sep 2008	Delayed, planned for late 2011/ early 2012
Two upgraded boilers	Oct 2007	Installed October 2009
flare No: 3	Sep 2007	Installed in 2008
flare No: 4	Apr 2008	Installed in 2008

Central Shaft

At the time the main degasification pipe is renewed. The works are expected to be finalized at the end of the 3rd quarter 2011. The installation of the flares 1 and 2 as well as the new boiler is planned for late 2011 or early 2012.

Air shaft

Two old coal boilers at Air Shaft have been upgraded with a CMM burner system and started operation in October 2009. A monitoring system for the boilers was installed on January 28, 2010, so the project monitoring in respect of this units has started since that time.

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The installation of two cogeneration units is planned for the end of the third quarter of 2011 and one cogeneration unit will be installed on late 2011 or early 2012.

Because of the fact that the maximum supply pressure from the existing central gas suction system turned out to be not sufficient for the supply of the flares and the boilers with gas, flares No.3 and No.4 have been equipped with compressors for additional pressure generation. Monitoring of additional power consumed by the project and accounting of resulted additional GHG emissions were included into the revised monitoring plan which was positively determined by BVC.

There was a change to the project's design as described in the PDD that occurred after the determination had been deemed final, which concerns the name of the project participant from the side of Ukraine, the coal mine where the project is being implemented. As of 29/04/2011 the name of the coal mine was changed from Open Joint Stock Company "Coal Mine Komsomolets Donbassa" to DTEK Mine Komsomolets Donbassa, Public Joint Stock Company. DTEK Mine Komsomolets Donbassa PJSC is a full legal successor of the OJSC "Coal Mine Komsomolets Donbassa", thus identification (registration) number and domicile of the legal entity remained the same.

The project participants presented the description of the change and provided its justification in the Annex 5 of the Monitoring Report. The description and justification of the change (within the Monitoring Report) was made publicly available via UNFCCC web-site.

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, CAR 02, CAR 03, CAR 04, CAR 05, CAR 06).



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 revised monitoring plan ver.3 of 23/08/2011 which was positively determined in course of the current verification.

For calculating the emission reductions, key factors, 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, as appropriate.

Data sources used for calculating emission reductions such as appropriately calibrated measuring equipment, equipment specifications, official data for Ukrainian power grid published by National Environmental Agency of Ukraine, 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 07, CAR 08, CAR 09, CAR 10).

3.5 Revision of monitoring plan (99-100)

In the course of first monitoring period (09/08/2008 – 03/11/2009) the original monitoring plan described in the registered PDD version 04 of 14/04/2008 was modified by the project participants. The project participants provided an appropriate justification for the proposed revision which was caused by a set of reasons: delay in project implementation resulted into change of monitoring period and frequency of some parameters calculation; installation of compressors for additional pressure generation and necessity to calculate additional electricity consumed by the project due to the absence of power meter during the 1st monitoring period; adjustment of some formulae in order to fit the applied measuring/monitoring method better. Changes introduced were sufficiently described in the revised Monitoring Plan ver. 1c of 25/05/2010 which



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obtained positive determination conclusion in course of the 1st verification under the project.

During the 2nd monitoring period (04/11/2009-31/10/2010) the revised monitoring plan version 1c was slightly modified in respect of the method for determination of additional electricity amount consumed by the project (which is in fact the electric energy used by the compressors and other equipment installed in the flare units), as during the first part of the previous monitoring period (from 04/11/2009 to 30/04/2010) the consumed power amount was calculated using the operation hours of the flares, and on 30/04/2010 electric power meters were installed enabling the direct measuring of the amount of electricity consumed by the flares. This modification, provided in the revised monitoring plan version 2 of 03/02/2011, was also positively determined by BVC during the 2nd periodic verification.

At the current verification the project participants provided for determination another revision of the monitoring plan (Revised Monitoring Plan ver.3 of 23/08/2011) based on the previously determined Revised Monitoring Plan ver.2 dated 03/02/2011 but with two another modifications concerning the data source and the value of carbon emission factor for the Ukrainian power grid, and the monitoring method for additional electricity consumed by the project.

In respect of the emission factor for Ukrainian power grid, the data recently published by National Environmental Investment Agency of Ukraine (NEIA, Ukrainian DFP) are now used as a data source for this parameter. This change is seemed to be reasonable as these data are national officially approved data for Ukrainian power grid published in May 2011, and, thus, are more accurate and up-to-date than the previous ones.

As to the method of additional electricity consumption monitoring, the updated monitoring plan envisages that this parameter is only measured by power meters but not calculated. The formula for calculation of the electricity consumed by flares was deleted as power meters at flares were operational during the whole monitoring period.

The description and appropriate justification of the proposed revision to the monitoring plan was provided by the project participants in the Revised Monitoring Plan ver.3 dated 23/08/2011 and in the current Monitoring Report.

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 Management and Operational Systems are eligible for reliable project monitoring according to the revised plan ver.3.



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.

The monitoring system is supervised by the administration of the coal mine under the existing control and reporting system. The general supervision of the electronically monitoring system is executed by Eco-Alliance LLC, who is consultant for the coal mine.

The data are collected, processed and stored using Siemens SIMATIC PLC S7 system and Siemens WINCC programming software. The collected data are stored electronically by a data logger and on paper in journals by the coal mine personnel. One time per hour the data are sent via GPS to an Internet-based data base. Further on the data is sent to the workstation of Eco-Alliance, the project's consultant, with frequency 1 time per week, per month and per year and archived quarterly and annually on the CD. The data can be read any time from the internet data base by authorised personnel. For plausibility checks and potential data back up the data logged in the hand written journals of the suction system can be taken. In case of problems with data transferring to the server the data can be recovered from the internal memory of the unit's computer where it's stored for 7 days. Eco-Alliance regularly verifies the electronically recorded data with the handwritten data and checks the stored data for plausibility, errors, deviations and non-conformity.

The employees responsible for the monitoring control have been trained on-the-job during the installation and operation of the monitoring system. The troubleshooting procedures are defined and the coal mine personnel are instructed accordingly.

The Coal Mine has Occupational Health and Safety Management System certified against the requirement of OHSAS 18001:2007 international standard.

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 Komsomolets Donbassa coal mine through supervising and coordinating activities of his subordinates, such as the Director of Capital Development, the Deputy Director on surface degasification, heat technician, head of safety engineering departments, etc. The project management structure is presented in the MR section C.1.1.

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 11, CAR 12, CAR 13, CAR 14, CAR15, CAR 16, CAR 17, CAR 18, CAR 19, CL 01, CL 02, CL 03, CL 04, FAR 01, FAR 02).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 3rd periodic verification for the period from 01 November 2010 to 30 June 2011 of the "CMM utilisation on the Joint Stock Company named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)" 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 DTEK Mine Komsomolets Donbassa, Public Joint Stock Company is responsible for the preparation of the GHG emissions



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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.3. 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 4, for the reporting period from 01/11/2010 to 30/06/2011 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 01/11/2010 to 30/06/2011

For the period from 01/11/2010 to 31/12/2010

Baseline emissions	: 28145	t CO ₂ equivalents;
Project emissions	: 3698	t CO ₂ equivalents;
Emission Reductions	: 24447	t CO ₂ equivalents.

For the period from 01/01/2011 to 30/06/2011

Baseline emissions	: 87106	t CO ₂ equivalents;
Project emissions	: 11493	t CO ₂ equivalents;
Emission Reductions	: 75613	t CO ₂ equivalents.

Total for the period from 01/11/2010 to 30/06/2011:

Baseline emissions	: 115251	t CO ₂ equivalents;
Project emissions	: 15191	t CO ₂ equivalents;
Emission Reductions	: 100060	t CO ₂ equivalents.



5 REFERENCES

Category 1 Documents:

Documents provided by 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 named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)", version 04 dated 14/04/2008
- /2/ Monitoring Report for the period from 01/11/2010 till 30/06/2011 version 1 dated 06/07/2011
- /3/ Monitoring Report for the period from 01/11/2010 till 30/06/2011 version 2 dated 05/08/2011
- /4/ Monitoring Report for the period from 01/11/2010 till 30/06/2011 version 3 dated 17/08/2011
- /5/ Monitoring Report for the period from 01/11/2010 till 30/06/2011 version 4 dated 23/08/2011
- /6/ Revised Monitoring Plan version 1c of 25/05/2010
- /7/ Revised Monitoring Plan version 2 of 03/02/2011
- /8/ Revised Monitoring Plan version 3 of 23/08/2011
- /9/ Calculation of Emission Reductions – excel file "ER-KD-2010-11-01 to 2011-06-30 V1.xls", ver.1
- /10/ Calculation of Emission Reductions – excel file "ER-KD-2010-11-01 to 2011-06-30 V3.xls", ver.3
- /11/ Flare data measurement for flare 3 - excel file "KD-F3_Measuring_Data_2010-11-01 to 2011-06-30.V2.xls"
- /12/ Flare data measurement for flare 4 - excel file "KD-F4_Measuring_Data_2010-11-01 to 2011-06-30.V1.xls"
- /13/ Upgraded boiler 1 and boiler 2 data measurement – excel file "KD-B1+2_Measuring_Data_2010-11-01 to 2011-06-30.V1.xls"
- /14/ Verification Report "CMM utilisation on the Joint Stock Company named Komsomolets Donbassa Coal Mine of DTEK (Donbasskaya Toplivnaya Energeticheskaya Kompanya)" No. UKRAINE/0182/2010, revision 01 of 22/02/2011, including the Determination of the revised Monitoring Plan ver.2 of 03/02/2011
- /15/ Letter of Approval of Ministry of Environmental Protection of Ukraine No 10822/11/10-07, issued on 03/10/2007
- /16/ Approval of voluntary participation in a Joint Implementation Project of the Ministry of Economic Affairs of the Netherlands No 2007JI04, issued on 26/11/2007

**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/ Report on air protection for 1 quarter 2011, form #2-ТП (air)
- /3/ Report on air protection for 2010, form #2-ТП (air)
- /4/ Letter #13-4480 dated 23/06/2011 issued by the Donetsk Region Environmental Protection State Administration regarding the permission for pollutant emissions
- /5/ Permit #1412500000-2a dated 03/12/2010 on stationary sources air pollution, issued by the Ministry of Environmental Protection of Ukraine
- /6/ Letter #13-8759 dated 03/12/2010 issued by the Donetsk Region Environmental Protection State Administration concerning permission for pollutant emissions.
- /7/ Work contract #143 dated 14/04/2011 between OJSC “Coal Mine Komsomolets Donbassa” and LLC “Technosoyuz-2004” on reconstruction of electric part of vacuum pumping station #1 of OJSC “Coal Mine Komsomolets Donbassa”
- /8/ Schedule on work implementation at Komsomolets Donbassa Coal Mine for the period since 21/04/2011 till 19/07/2011 approved by the Director of LLC “Technosoyuz-2004”
- /9/ Statement dated 07/07/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /10/ Statement dated 07/07/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /11/ Statement dated 03/06/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /12/ Statement dated 14/05/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /13/ Statement dated 19/04/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated



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- 01/01/2010)
- /14/ Statement dated 03/03/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /15/ Statement dated 24/02/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /16/ Statement dated 10/01/2011 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /17/ Statement dated 14/12/2010 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /18/ Statement dated 18/11/2010 on gas utilization equipment (CGUU-5/8, serial #3) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (Agreement #31 dated 01/01/2010)
- /19/ Statement dated 03/06/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /20/ Statement dated 14/05/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /21/ Statement dated 19/04/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /22/ Statement dated 03/03/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (Agreement #31 dated 01/01/2010)
- /23/ Statement dated 24/02/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)
- /24/ Statement dated 10/01/2011 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (Agreement #31 dated 01/01/2010)
- /25/ Statement dated 14/12/2010 on gas utilization equipment (CGUU-5/8, serial #4) service maintenance work execution at Komsomolets Donbassa Coal Mine JSC (according to the Agreement #31 dated 01/01/2010)



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- /26/ Annex #3.1 dated 01/06/2007 to the Agreement #10065000 dated 01/06/2007 on electric energy supply
- /27/ Letter #08/1057 dated 08/02/2011 of supervision results on debit and gas composition in December 2010 and Statement #11 dated 04/02/2011 on scientific and technical work execution according to the Agreement #1792034110 dated 01/02/2010, issued by the "State Makeyevka Institute for Research and Education for Safe Work in the Coal Mining Industry". Results of the laboratory analysis of the captured gas for November and December 2010
- /28/ Letter #08/5727 dated 13/07/2011 of supervision results on debit and gas composition in April 2010 and Statements #3 dated 11/07/2011, #4 dated 12/07/2011, #5 dated 12/07/2011 on scientific and technical work execution according to the Agreement #1792034170 dated 20/12/2010, issued by the "State Makeyevka Institute for Research and Education for Safe Work in the Coal Mining Industry". Results of the laboratory analysis of the captured gas for February-June 2011
- /29/ Photo – Boiler #1, registration #46463, inventory #11604
- /30/ Photo – Boiler #2, registration #46464, inventory #11605
- /31/ Photo – ERU measurement automatic system
- /32/ Logbook on ERU measurement automatic system operation for the period since 07/11/2010 till 02/07/2011 for the boilers, Komsomolets Donbassa Coal Mine JSC
- /33/ Failure and interruption logbook for the boilers, data for the period from 04/11/2010 till 08/04/2011
- /34/ Logbook on CGUU #3 operation, data for the period since 04/10/2010 till 30/06/2011, Komsomolets Donbassa Coal Mine JSC
- /35/ Logbook on CGUU #4 operation, data for the period since 02/11/2010 till 02/07/2011, Komsomolets Donbassa Coal Mine JSC
- /36/ Failure and interruption journal on CGUU #4, data for the period since 16/01/2011 till 07/07/2011 (Komsomolets Donbassa Coal Mine)
- /37/ Failure and interruption journal on CGUU #3 (Komsomolets Donbassa Coal Mine)
- /38/ Statement on natural phenomenon (lighting stroke) which took place at Komsomolets Donbassa Coal Mine on 14/06/2011
- /39/ Service logbook CGUU #3, data for the period from 14/12/2010 till 07/07/2011
- /40/ Service logbook CGUU #4, data for the period from 20/10/2010 till 03/06/2011



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- /41/ Logbook on flares No.3 and No.4 working hours and energy consumption for the period since 01/11/2010 till 03/07/2011
- /42/ Photo - Power meter type ЦЭ6803B, serial #0865680707894059, CGUU #4
- /43/ Photo - Power meter type ЦЭ6803B, serial #0865680707877441, CGUU #3
- /44/ Photo – Current transformer T-0,66 UZ, serial #22518, CGUU #4
- /45/ Photo – Current transformer T-0,66 UZ, serial #23607, CGUU #4
- /46/ Photo – Current transformer T-0,66 UZ, serial #23913, CGUU #4
- /47/ Photo – Current transformer T-0,66 UZ, serial #09553, CGUU #3
- /48/ Photo – Current transformer T-0,66 UZ, serial #08233, CGUU #3
- /49/ Photo – Current transformer T-0,66 UZ, serial #23934, CGUU #3
- /50/ Boilers No.1 and No.2 passports. Records on boiler inspection dated 22/03/2011
- /51/ Accreditation certificate #2H555 of 01/12/2009 issued by the National Accreditation Agency of Ukraine for Testing centre of the State Makiyivka scientific and research institute for mining safety (MAKNII)
- /52/ Extract of the Charter of DTEK Mine Komsomolets Donbassa, Public Joint Stock Company
- /53/ Minutes #1 of the general meeting of Open Joint Stock Company “Komsomolets Donbassa” shareholders dated 29/04/2011

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/ Roman Vodopshyn – Acting general director of DTEK Mine Komsomolets Donbassa, PJSC
- /2/ Volodymyr Rogovets – Head of mining operations on capital construction of DTEK Mine Komsomolets Donbassa, PJSC
- /3/ Andrii Kaminskiy – Chief power engineer of DTEK Mine Komsomolets



Donbassa, PJSC

- /4/ Leonid Chernomorskiy – Head of division for preventive works and safety measures of DTEK Mine Komsomolets Donbassa, PJSC
- /5/ Yevgen Denisenko – Senior mechanical operator of the boiler house at the air shaft No.3 of DTEK Mine Komsomolets Donbassa, PJSC
- /6/ Nataliia Ponurovska – Lead engineer on environmental protection of DTEK Mine Komsomolets Donbassa, PJSC
- /7/ Kasyanov V. – Director of “Eco-Alliance” LLC
- /8/ Shelegeda P. – Deputy Director of “Eco-Alliance” LLC
- /9/ Avtonomov V. – JI project manager of “Eco-Alliance” LLC
- /10/ Didenko A. - Head of Service Department of “Eco-Alliance” LLC



APPENDIX A: 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 Host Party (Ukraine) and the other Party involved (the Netherlands). The written project approvals were issued by NFPs of Parties involved (see chapter 7 References in the verification report). Both Letters of Approval were available at the beginning of 1 st 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?	During the 3 rd monitoring period (01/11/2010–30/12/2011) only two upgraded boilers and two flares (No.3 and No.4) at the Air Shaft No.3 were operational. Because of the incomplete implementation and delays in project implementation the coal mine, the CAR has	CAR 01 CAR 02 CAR 03	OK OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>been raised:</p> <p>CAR 01. The project implementation status must be updated in respect of the units, installation of which is delayed. The new timelines for delayed activities are to be established and presented in the updated Monitoring Report (MR).</p> <p>Also, the interviews with coal mine representatives (conducted during site visit) revealed that the installation of the further project units is delayed because of the lack of captured CMM amount; however, this reason is not indicated in the MR:</p> <p>CAR 02. Please, provide in the MR the actual reasons and reasonable justification of the delay in the further units installation.</p> <p>The interviews conducted in course of the verification revealed that the coal mine where the project in being implemented (the project participant from the side of host Party) was renamed during the considered monitoring period; however no information regarding this change is available in the MR. According to the "Procedures regarding changes during project implementation" the changes to the project's design as described in the PDD, that occur after the determination has been deemed final, shall be</p>		



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>described and justified by project participants, thus the CAR was issued:</p> <p>CAR 03. Please, provide the description and justification of the change to the project's design as described in the PDD, that occur after the determination has been deemed final (renaming of the coal mine), as an annex to the MR.</p>		
93	What is the status of operation of the project during the monitoring period?	<p>The project started its operation on 9th August 2008 with flare 3 operation commencement. During the 3rd monitoring period (01 November 2010 – 30 June 2011) only two upgraded boilers (installed in October 2009) and two flares No.3 and No.4 (installed in 2008) at the Air Shaft No.3 were operational. Installation of further units as stated in the PDD is delayed and should follow in late 2011 and 2012.</p> <p>The status of project activity implementation compared to the PDD is presented in the section A.6 of the MR.</p> <p>The 1st version of the MR provides incorrect information regarding the last inspection of the installed project units (flare No.3, flare No.4, boiler No.1 and boiler No.2), therefore the CAR was raised:</p> <p>CAR 04. Please, present the updated information as to the last inspection of the installed project units in the MR. As to the boilers 1 and 2, the documentation confirming the date of last inspection must be provided.</p>	CAR 04 CAR 05 CAR 06	OK OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>Interviews conducted during site-visit to the coal mine revealed that on June, 14, 2011 there was an accident (lightning stroke) happened to the flares, however, this has not been reflected in the MR.</p> <p>CAR 05. Please, provide the information on lightning stroke happened to the flares on 14/06/2011 in the MR, especially in respect of its impact on the project monitoring.</p> <p>In respect of the emission reductions achieved, the amount of reported ERUs is lower than that expected in the PDD, however, this deviation was not explained in the MR ver.1:</p> <p>CAR 06. Please, provide comparison of the planned in the PDD and actually achieved values of emission reductions, and explain the deviation.</p>		
Compliance with monitoring plan				
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	<p>The monitoring occurred in accordance with the PDD regarding which the determination has been deemed final and revised monitoring plan ver.3 which was submitted for the determination in course of the current verification (for further information refer to cl.99 (a) – 99 (b) of this protocol).</p> <p>Although, some inconsistencies are observed in the 1st version of the MR which require corrections:</p> <p>CAR 07. The inconsistency is observed in the</p>	CAR 07 CAR 08	OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>description of parameters in the sections B.2.1 – B.2.4 and D.1 of the MR and the Revised Monitoring Plan (MP) in respect of data variable names (parameters P16, P18, B14), data units (P13, B55), source of data (P5, P26, B14, CONS_{ELEC,FlareI}), additional information (comments) (P5, B14, CONS_{ELEC,FlareI}). Please, bring the MR in the consistency with the last version of Revised MP.</p> <p>CAR 08. Please, provide the updated information as to the project's environmental impacts in the section B.2.6 of the MR.</p>		
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	Key factors, such as availability and amount of extracted coal mine gas, concentration of methane in the extracted gas, heat demand at the coal mine etc, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account for calculating the emission reductions.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and 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.	OK	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements	Emission factors, including default emission factors such as carbon emission factor for Ukrainian power grid, carbon emission factor for combusted methane,	CAR 09	OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	<p>GWP and CO₂ emission factor of fuel used for captive power or heat, which are used for calculating the emission reductions, are selected by carefully balancing accuracy and reasonableness, and are appropriately justified of the choice.</p> <p>However, the value of the carbon emission factor of CONS_{ELEC,PJ} applied in the MR is not correct:</p> <p>CAR 09. Because of the fact that the carbon emission factor of CONS_{ELEC,PJ} is used to calculate emissions from the additional electricity consumed by the project, please, use the NEIA emission factor for consumption of the electricity (but not production as in the MR ver.1). Please, also note that the applied emission factor for electricity consumption must correspond to the consumer class which the coal mine belongs to.</p>		
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?	<p>The performed calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.</p> <p>The continuation of situation existing 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.</p> <p>However, some additional information needs to be provided in the MR:</p>	CAR 10	OK

VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 10. In the MR, please, provide calculation of project and baseline emissions and emission reduction by sources.		
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/a	N/a	N/a
Applicable to bundled JI SSC projects only				
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	N/a	N/a	N/a



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	with those for which verifications were already deemed final in the past?			
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?	<p>In the course of 1st monitoring period (09/08/2008 – 03/11/2009) the original monitoring plan described in the registered PDD was modified because of a set of reasons, such as delay in project implementation resulted into change of crediting period and frequency of some parameters calculation; installation of compressors for additional pressure generation and necessity to calculate additional electricity consumed by the project due to the absence of power meter during the 1st monitoring period; adjustment of some formulae in order to fit the measuring/monitoring method applied better. The project participants sufficiently described all introduced changes and provided an appropriate justification for the proposed revision in the revised Monitoring Plan ver. 1c of 25/05/2010 which obtained positive determination conclusion in course of the 1st verification under the project.</p> <p>During the 2nd monitoring period (04/11/2009-31/10/2010) the revised monitoring plan version 1c was slightly modified again in respect of method for determination of amount of additional electricity consumed by the project, as during the first part of the previous monitoring period (from 04/11/2009 to</p>	OK	OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>30/04/2010) the consumed power amount was calculated using the operation hours of the flares, and since 30/04/2010 electric power meters have been used for direct measurement of the amount of consumed electricity. This modification provided in the revised monitoring plan version 2 of 03/02/2011 was also positively determined by BVC during the 2nd periodic verification.</p> <p>At the current verification the project participants provided for determination another revision of the monitoring plan (Revised Monitoring Plan ver.3 of 23/08/2011), which in general was caused by the change of the data source and the value of carbon emission factor for the Ukrainian power grid, and also the change of the monitoring method for additional electricity consumed by the project.</p> <p>In respect of the modification regarding emission factor for Ukrainian power grid, data recently published by National Environmental Investment Agency of Ukraine (NEIA, Ukrainian DFP) are now used as a data source for this parameter. This change is seemed to be reasonable as these data are national officially approved data for Ukrainian power grid published in May 2011, and, thus, are more accurate than the previous ones.</p> <p>As to the method of additional electricity consumption monitoring, the updated monitoring plan envisages that</p>		

VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>this parameter is measured by power meters but not calculated. The formula for calculation of the electricity consumed by flares was deleted as power meters at flares were operational during the whole monitoring period.</p> <p>Thus, the appropriate justification of the proposed revision to the monitoring plan was provided by the project participants in the Revised Monitoring Plan ver.3 dated 23/08/2011.</p>		
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	The proposed changes presented in the revised monitoring plan ver. 3 of 23/08/2011 improve accuracy and applicability of the collected information compared to the original monitoring plan. The conformity with the relevant rules and regulations for the establishment of the monitoring plans remains unchanged.	OK	OK
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?	<p>The implementation of data collection procedures is in accordance with the PDD and revised monitoring plan, including the quality control and quality assurance procedures.</p> <p>Nevertheless, the MR requires some corrections and amendments as follows:</p> <p>CAR 11. The information regarding internal audit and control measures (section C.3) are presented for flare units only. Please, supplement the MR with the information regarding internal audits and control</p>	CAR 11 CAR 12 CAR 13 CL 01	OK OK OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>measures in respect of upgraded boilers.</p> <p>CAR 12. There is inconsistency in the information about the involvement of the third parties in the section B.1.4 of the MR, e.g. Ukrteplostroy and Derzhpromnaglyad Donetsk stated in the section B.1.4 are not indicated in the table-5, section B.1.2; Emission-Trader ET GmbH is not currently involved in the project monitoring activity. Please, revise and updated the information in the section B.1.4.</p> <p>CAR 13. Please, update the information as to the monitoring activities performed by the Ukrteplostroy during the considered monitoring period as some of the activities stated in the section C.2 of the MR were not executed during this monitoring period.</p> <p>In respect of the QA/QC procedures for NMHC analysis, the accreditation status of the respective laboratory during the current monitoring period should be proved:</p> <p>CL 01. Please, submit the updated accreditation certification of the laboratory which undertakes the NMHC analysis of the captured gas (MAKNII). Note, that lab's accreditation validity during the whole monitoring period must be confirmed.</p>		
101 (b)	Is the function of the monitoring equipment, including its calibration status,	The measurement equipment used for project monitoring is serviced, calibrated and maintained in	CAR 14 CAR 15	OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	in order?	<p>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 identified:</p> <p>CAR 14. As was revealed during site visit, the monitoring devices with IDs 1, 8 and 9 are not used in the project monitoring; therefore they should be excluded from the list of monitoring equipment.</p> <p>CAR 15. As to the monitoring equipment with ID 10 (chromatograph Gasochrom) its classification and serial number indicated in the MR do not correspond to the information stated in the respective calibration certificate No.4531 of 15/10/2010. Also no data are indicated regarding manufacturer, range, installation, place of the installation of this monitoring device in the table-5 and section B.1.2 of the MR.</p> <p>CAR 16. Please, indicate the frequency of measurement for the monitoring device with ID-2 in the MR.</p> <p>CAR 17. For the monitoring device with ID 6 (thermocouple), please, indicate the installation date of the currently used thermocouples (for both flare 3 and flare 4) in the MR.</p>	<p>CAR 16 CAR 17 CAR 18 CAR 19 CL 02</p>	<p>OK OK OK OK OK</p>



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>CAR 18. Please, indicate the manufacturer of the monitoring equipment with IDs 12-19, 26 and 27 as required by the format of the table-5 in the MR.</p> <p>CAR 19. The last calibration dates of the monitoring devices with IDs 18, 19 and 27 must be stated in the MR (table-5, section B.1.2).</p> <p>CL 02. The troubleshooting procedures presented in the section C.4 of the MR concern the project equipment (flares and boilers) only. Please, specify the available troubleshooting procedures for the monitoring system and measuring equipment.</p>		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	<p>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.</p> <p>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, thus the CL was issued:</p> <p>CL 03. Please, correct/clarify the information about the journal where emission reduction calculation results are</p>	CL 03 FAR 01 FAR 02	OK FAR 01 and FAR 02 will be checked during next verification



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>notified and specify who performs such overview calculations.</p> <p>The interviews conducted during site visit demonstrated that monitoring records storage time is not clearly established and known by all responsible personnel. So, the FAR was issued:</p> <p>FAR 01. A documented instruction/decreed prescribing the storage of data monitored and required for ERUs calculation for two years after the last transfer of ERUs for the project should be issued and communicated to all responsible persons.</p> <p>As was revealed during site-visit the monitoring data from the electronic monitoring system are archived on CDs and stored at Eco-Alliance only, and no copies are kept at the coal mine. In this respect the FAR was raised:</p> <p>FAR 02. The monitoring data from the electronic monitoring system should be archived and stored by the responsible person at the coal mine additionally to the data archiving by the Eco-Alliance.</p>		
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 operational systems and found them eligible for reliable project monitoring.	CL 04	OK

VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>However, the information on personnel training must be clarified:</p> <p>CL 04. Please, clarify if any personnel training were carried out during the considered monitoring period.</p>		
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	<p>Does the sampling plan prepared by the AIE:</p> <p>(a) Describe its sample selection, taking into account that:</p> <p>(i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA</p>	N/a	N/a	N/a



 VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: <ul style="list-style-type: none"> - 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
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	N/a	N/a	N/a



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	number, then does the AIE provide a reasonable explanation and justification?			
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 verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<p>CAR 01. The project implementation status must be updated in respect of the units, installation of which is delayed. The new timelines for delayed activities are to be established and presented in the updated Monitoring Report (MR).</p>	92	<p><i>Response #1:</i> The MR has been corrected.</p> <p><i>Response #2:</i> The MR has been corrected.</p>	<p><i>Conclusion on response #1:</i> The information regarding implementation status must be updated in the section A.7 as well.</p> <p><i>Final conclusion:</i> The appropriate corrections were made as required. The issue is closed.</p>
<p>CAR 02. Please, provide in the MR the actual reasons and reasonable justification of the delay in the further units installation.</p>	92	The MR has been extended.	The relevant information regarding the reason for project installation delays, which is the lack of methane amount caused by changes in mining plan, has been presented in the updated MR. The issue is closed based on the due corrections made.



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<p>CAR 03. Please, provide the description and justification of the change to the project's design as described in the PDD, that occur after the determination has been deemed final (renaming of the coal mine), as an annex to the MR.</p>	92	<p>The description and justification of the change to the project's design as described in the PDD has been provided in the Annex to the MR.</p> <p>On 29/04/2011 the name of the Coal Mine where the project is implemented has been changed from "OPEN JOINT STOCK COMPANY "MINE "KOMSOMOLETS DONBASSA" to DTEK MINE KOMSOMOLETS DONBASSA, PUBLIC JOINT-STOCK COMPANY</p> <p>The identifying number and domicile of the legal entity as well as the place of registration remain unchanged.</p> <p>The supporting documentation has been provided to the verification team.</p>	<p>The updated MR was checked by the verifiers: the required information was provided in the Annex 5 to the MR. The project participant submitted to the verification team the extract from the Minutes #1 of the general meeting of Open Joint Stock Company "Komsomolets Donbassa" shareholders dated 29/04/2011, where the decision on coal mine's renaming was taken, and the extract from the enterprise's Charter.</p> <p>The issue is closed based on the provided documentation and amendment made to the MR.</p>
<p>CAR 04. Please, present the updated information as to the last inspection of the installed project units in the MR. As to the boilers 1 and 2, the documentation confirming the date of last inspection must be provided.</p>	93	<p>The MR has been corrected.</p> <p>The confirmative documents are attached: KD-1 - Inspections of boiler 1.tif KD-2 - Inspections of boiler 2.tif</p> <p>Extracts from the passports of the boilers concerning inspections were provided to the verifiers.</p>	<p>The provided documentation (extracts from the boilers' passports containing records about last inspection) and corrected MR were checked and found appropriate. The issue is closed.</p>
<p>CAR 05. Please, provide the information on lightning stroke happened to the flares on 14/06/2011 in the MR, especially in respect of its impact on the project monitoring.</p>	93	<p>The MR has been extended.</p>	<p>The relevant information has been provided in the MR. The issue is closed based on the due amendments made.</p>



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<p>CAR 06. Please, provide comparison of the planned in the PDD and actually achieved values of emission reductions, and explain the deviation.</p>	93	The MR has been extended.	<p>The comparison of the expected and achieved emission reductions was added to the section D.3 of the MR. The emission reductions achieved during the considered monitoring period is only 45,4% of the expected estimates in the PDD. The explanation of such deviation was provided in the MR and it is a delay in the installation of several project units and lack of the methane amount at the coal mine. The issue is closed.</p>
<p>CAR 07. The inconsistency is observed in the description of parameters in the sections B.2.1 – B.2.4 and D.1 of the MR and the Revised Monitoring Plan (MP) in respect of data variable names (parameters P16, P18, B14), data units (P13, B55), source of data (P5, P26, B14, CONS_{ELEC,FlareI}), additional information (comments) (P5, B14, CONS_{ELEC,FlareI}). Please, bring the MR in the consistency with the last version of Revised MP.</p>	94	<p><i>Response #1:</i> MR and RMP are now consistent.</p> <p><i>Response #2:</i> The MR has been corrected.</p>	<p><i>Conclusion on response #1:</i> Please, correct the following:</p> <ol style="list-style-type: none"> 1. Data units for the parameter P8/B49; 2. Data source and comments for P5; 3. The source of data (monitoring equipment ID) for P13, P12, P25, P26; 4. The name of the parameter B14 in the Table-9. <p><i>Final conclusion:</i> The issue is closed based on the due corrections made to the MR.</p>



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<p>CAR 08. Please, provide the updated information as to the project's environmental impacts in the section B.2.6 of the MR.</p>	94	The MR has been corrected.	The information as to the project's environmental impacts has been updated in the MR. The issue is closed based on the due corrections made.
<p>CAR 09. Because of the fact that the carbon emission factor of $CONS_{ELEC,PJ}$ is used to calculate emissions from the additional electricity consumed by the project, please, use the NEIA emission factor for consumption of the electricity (but not production as in the MR ver.1). Please, also note that the applied emission factor for electricity consumption must correspond to the consumer class which the coal mine belongs to.</p>	95 (c)	The MR, Revised MP and ER-Table have been corrected.	The correct 2010 and 2011 NEIA emission factors for electricity consumption have been used. The documented evidence of the coal mine consumer class was provided: Annex #3.1 to the Contract for electric energy consumption #10065000 of 01/06/2007 indicates that the coal mine relates to the 1 class. The emission reductions have been recalculated appropriately. Thus, the issue is closed.
<p>CAR 10. In the MR, please, provide calculation of project and baseline emissions and emission reduction by sources.</p>	95 (d)	The MR has been extended.	The results of project and baseline emissions and emission reductions calculation are now provided in the section D.3 of the MR. The issue is closed.



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<p>CAR 11. The information regarding internal audit and control measures (section C.3) are presented for flare units only. Please, supplement the MR with the information regarding internal audits and control measures in respect of upgraded boilers.</p>	101 (a)	The MR has been corrected.	The information in the section C.3 has been clarified. The issue is closed based on due amendments made to the MR.
<p>CAR 12. There is inconsistency in the information about the involvement of the third parties in the section B.1.4 of the MR, e.g. Ukrteplostroy and Derzhpromnaglyad Donetsk stated in the section B.1.4 are not indicated in the table-5, section B.1.2; Emission-Trader ET GmbH is not currently involved in the project monitoring activity. Please, revise and updated the information in the section B.1.4.</p>	101 (a)	The MR has been corrected.	The issue is closed based on the appropriate amendments made to the MR.
<p>CAR 13. Please, update the information as to the monitoring activities performed by the Ukrteplostroy during the considered monitoring period as some of the activities stated in the section C.2 of the MR were not executed during this monitoring period.</p>	101 (a)	The MR has been corrected. During monitoring period Ukrteplostroy performed no activities connected with monitoring.	The issue is closed based on clarification and due amendments made to the MR.



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<p>CAR 14. As was revealed during site visit, the monitoring devices with IDs 1, 8 and 9 are not used in the project monitoring; therefore they should be excluded from the list of monitoring equipment.</p>	101 (b)	<p>The MR has been corrected. The monitoring equipment was been removed from the MR.</p>	<p>The list of monitoring equipment has been updated appropriately. The issue is closed based on the due corrections made in the MR.</p>
<p>CAR 15. As to the monitoring equipment with ID 10 (chromatograph Gasochrom) its classification and serial number indicated in the MR do not correspond to the information stated in the respective calibration certificate No.4531 of 15/10/2010. Also no data are indicated regarding manufacturer, range, installation, place of the installation of this monitoring device in the table-5 and section B.1.2 of the MR.</p>	101 (b)	<p><i>Response #1:</i> The MR has been corrected.</p> <p><i>Response #2:</i> The MR has been corrected.</p>	<p><i>Conclusion on response #1:</i> Please, indicate the measurement range of this monitoring device.</p> <p><i>Final conclusion:</i> The required information as to the chromatograph Gasochrom has been provided in the updated MR. The issue is closed.</p>
<p>CAR 16. Please, indicate the frequency of measurement for the monitoring device with ID-2 in the MR.</p>	101 (b)	<p>The frequency of measurement of the gas flow meter ME 1120-2CC22-1BA3 (ID-1 in the updated MR) is 15 minutes. This information has been provided in the MR.</p>	<p>The issue is closed based on the appropriate information provided in the updated MR.</p>
<p>CAR 17. For the monitoring device with ID 6 (thermocouple), please, indicate the installation date of the currently used thermocouples (for both flare 3 and flare 4) in the MR.</p>	101 (b)	<p>The MR has been corrected.</p>	<p>The thermocouples' installation date, which is 04/10/2010, is indicated in the MR. The issue is closed.</p>



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CAR 18. Please, indicate the manufacturer of the monitoring equipment with IDs 12-19, 26 and 27 as required by the format of the table-5 in the MR.	101 (b)	The MR has been corrected.	The required information has been provided in the updated version of the MR. The issue is closed.
CAR 19. The last calibration dates of the monitoring devices with IDs 18, 19 and 27 must be stated in the MR (table-5, section B.1.2).	101 (b)	The MR has been corrected.	The monitoring devices' last calibration dates have been indicated in the MR and found to be in accordance with the respective calibration passports. The issue is closed.
CL 01. Please, submit the updated accreditation certification of the laboratory which undertakes the NMHC analysis of the captured gas (MAKNII). Note, that lab's accreditation validity during the whole monitoring period must be confirmed.	101 (a)	The document is attached: KD-3-Licence MAKNI 2009-12-01 to 2012-10-30.pdf	The accreditation certificate #2H555 of 01/12/2009 issued by the National Accreditation Agency of Ukraine for Testing center of the State Makiyivka scientific and research institute for mining safety (MAKNII) has been provided. The certificate is valid until 30/11/2012. The issue is closed.
CL 02. The troubleshooting procedures presented in the section C.4 of the MR concern the project equipment (flares and boilers) only. Please, specify the available troubleshooting procedures for the monitoring system and measuring equipment.	101 (b)	The MR has been extended.	The issue is closed based on appropriate information provided in the updated MR.



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CL 03. Please, correct/clarify the information about the journal where emission reduction calculation results are notified and specify who performs such overview calculations.	101 (c)	The MR has been corrected.	The information was found to be irrelevant and has been deleted from the MR. The issue is closed based on appropriate correction made.
CL 04. Please, clarify if any personnel training were carried out during the considered monitoring period.	101 (d)	No new personnel training have been carried out because no new equipment has been installed and no new personnel have been recruited. The appropriate information has been added to the MR.	The clarification and amendment made to the MR were found adequate. The issue is closed.
FAR 01. A documented instruction/decreed prescribing the storage of data monitored and required for ERUs calculation for two years after the last transfer of ERUs for the project should be issued and communicated to all responsible persons.	101 (c)	An official instruction which prescribes the procedure of data storage will be provided for the next verification.	The FAR be will checked during next periodic verification of the project.
FAR 02. The monitoring data from the electronic monitoring system should be archived and stored by the responsible person at the coal mine additionally to the data archiving by the Eco-Alliance.	101 (c)	The CD with electronic monitoring data will be provided to the coal mine.	The FAR be will checked during next periodic verification of the project.