VERIFICATION REPORT

PJSC "SHAKHTA IMENI O.F.ZASYADKA"

VERIFICATION OF THE "UTILIZATION OF COAL MINE METHANE AT THE COAL MINE NAMED AFTER A.F. ZASYADKO"

9TH PERIODIC
(01 JUNE 2011 – 30 APRIL 2012)

REPORT NO.UKRAINE-VER/0414/2012

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VERIFICATION

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Client: PJSC "Shakhta imeni O.F.Zasyadka"	Client ref.: Boris Bokiy

Summary:
Bureau Veritas Certification has made the 9th periodic verification of the "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko", JI Registration Reference Number 0035, project of PJSC "Shakhta imeni O.F.Zasyadka" located in Donetsk city, 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 monitoring report against project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CL, CAR and FAR), presented in Appendix A.
In summary, Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 411 273 tons of CO_2 equivalent for the monitoring period from 01/06/2011 to 30/04/2012 that includes 255943 tons of CO_2 equivalent for the monitoring period from 01/06/2011 to 31/12/2011 and 155330 tons of CO_2 equivalent from 01/01/2012 to 30/04/2012.

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/0414/2012	Subject Group: JI	
Project title: "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko"		
Work carried out by: Svitlana Gariyenchyk - Team Leader, Lead Verifier Vitaliy Minyaylo - Team Member, Verifier		
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Dmytro Balyn – Technical Specialist		
Work approved by: Ivan Sokolov- Operational Manager		
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1 INTRODUCTION

Public Joint Stock Company “Shakhta imeni O.F.Zasyadka” (Form of ownership of the Mine was changed as of July 22nd 2011. Previous form of ownership Lease Enterprise “Coal Mine named after A.F. Zasyadko” is no longer valid, whereas a new form of ownership is Public Joint Stock Company “Shakhta imeni O.F. Zasyadka”. Please, refer to the documents listed under #6, #7, #8, and #9 in Section References Category 2 Documents of the present Verification report) has commissioned Bureau Veritas Certification to verify the emission reductions of its JI project “Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” (hereafter called “the project”), Donetsk city, Ukraine, JI Registration Reference No 0035.

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

1.1 Objective

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

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

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

1.2 Scope

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

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications 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:

Svitlana Gariyenchyk
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Vitaliy Minyaylo
Bureau Veritas Certification Team Member, Climate Change Verifier

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 determination protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Monitoring Report (MR) version 1.0 dated 03/05/2012 submitted by PJSC “Shakhta imeni O.F.Zasyadka” and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology 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.

To address Bureau Veritas Certification corrective action and clarification requests, PJSC “Shakhta imeni O.F.Zasyadka” revised the MR and

resubmitted it as version 2.0 dated 21/05/2012 and version 3.0 dated 25/05/2012.

To address Bureau Veritas Certification requests put forward by the Internal Technical Reviewer, PJSC "Shakhta imeni O.F.Zasyadka" revised the MR and resubmitted it as version 4.0 dated 31/05/2012 that is deemed final.

The verification findings presented in this report relate to the Monitoring Report version 4.0.

2.2 Follow-up Interviews

On May 11, 2012 Bureau Veritas Certification verification team performed interviews with project stakeholders at PJSC "Shakhta imeni O.F.Zasyadka" and its Separate Subdivision (SS) "Combined Heat and Power Plant" (before July 22, 2011 called Structural Unit "Combined Heat and Power Plant" of Lease Enterprise "Coal Mine named after A.F. Zasyadko" Please, refer to the document listed under # 10 in Section References Category 2 Documents of the present Verification report) to confirm selected information and to resolve issues identified in the document review. Representatives of PJSC "Shakhta imeni O.F.Zasyadka", SS "Combined Heat and Power Plant" and LLC "Carbon Emissions Partnership Technic" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC "Shakhta imeni O.F.Zasyadka" SS "Combined Heat and Power Plant"	Project implementation status Organizational structure Responsibilities and authorities Personnel training Quality management procedures and technology Records of equipment installation Control of metering equipment Metering record keeping system, database Cross-check of the information provided in the MR with other sources
Consultant: LLC "Carbon Emissions Partnership Technic"	Baseline methodology 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 4 Corrective Action Requests and 9 Clarification 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

One Forward Action Request "Please, provide the cards of working places to make it sure the level of noise and vibration at SU CHP is in conformity with the one legally established" was left open from the previous verification.
To address this issue the PPs provided the respective documents listed among Category 2 Documents under # 79 and #80 in Section References of the present Verification report.
Thus, FAR 01 from the previous monitoring period is closed.

3.2 Project approval by Parties involved (90-91)

Written project approvals from Japan, the Netherlands and Switzerland have been issued by the DFP of those Parties when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest. (The LoAs are mentioned in the Category 1 Documents Reference section of this report)

The abovementioned written approvals are unconditional

3.3 Project implementation (92-93)

The present JI project implies utilization of Coal Mine Methane (CMM) from the PJSC "Shakhta imeni O.F.Zasyadka" for heat and power generation and production of gas to be used as a vehicle fuel. According to the PDD version 4.4 of 27/03/2008 two 12 module CHPs and five automotive gas filling stations should be installed and should be fired with CMM.
The status of project activity implementation compared to the PDD is presented in the table below:

Activity	Planned installation date, as stated in the PDD	Implemetation status
Commissioning of two gas filling compressor stations	March 2004	March 2004
Commissioning of one new gas filling compressor station	March 2005	March 2005
Commissioning of the 1st CHP module at Vostochnaya site	January 2006	January 2006
Commissioning of 12 CHP modules at Vostochnaya site	April 2006	April 2006
Heat delivery from CHP modules and shut-	September	September 2006

down of boilers at Vostochnaya site	2006	
Commissioning of one new gas filling compressor station	November 2007	March 2005
Commissioning of one new gas filling compressor station	January 2008	Delayed due to accident 2007, planned for September 2012
Heat power delivery from CHP modules and shut-down of boilers at Yakovlevskaya site	July 2008	Delayed due to accident 2007, planned for October 2012
Heat delivery from CHP modules, and shut-down of boilers at Centralnaya site	May 2008	Delayed due to accident 2007, planned for October 2012
Commissioning of the 1st CHP module at Yakovlevskaya site	July 2009	Delayed due to reduction of mining works after accident occurred in 2007, planned for December 2012
Commissioning of 12 CHP modules at Yakovlevskaya site	December 2009	Delayed due to reduction of mining works after accident occurred in 2007, planned for December 2012
Heat power delivery to district heat supply system	September 2009	Delayed due to accident in 2007, planned for December 2012

As it is seen from the Table above the implementation of the planned activities (at the Centralnaya, Yakovlevskaya, Grigorievskaya sites) is postponed for the later periods within the crediting period. Thus, the project is still not fully implemented. Though the implementation of the missing parts of the project is going on it was seen on-site and can be proved by the verification team as well as by the documentary evidence taken from the site visit (Please, refer to the documents listed under ##72-78 in References Section Category 2 Documents of the present Verification Report).

The actual status of operation of the proposed project is as follows:

- Generation of electricity and heat at the Vostochnaya site of the mine (12 module CHP)
- Utilisation of methane as vehicle fuel (Automobile Gas Filling Compressor Plant)
- 7 CHP modules at Yakovlevskaya site have been installed but are not yet operational

The verifiers can confirm, through the visual inspection that all physical features of the proposed JI project activity including data collecting and storage systems have been implemented, the project is completely operational that was seen on-site.

Outstanding issues related to project implementation, PP's response and BVC's conclusion are described in Appendix A Table 2 (refer to CAR 01, CAR 04, CL 01, CL 05).

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

The monitoring occurred in accordance with the monitoring plan revised and positively determined during the previous verification.
It is confirmed that the monitoring procedure does comply with the monitoring methodology described in the PDD and revised monitoring plan.

For calculating the emission reductions, key factors, such as

- coal mine operations safety demands
- prices for electricity, heat and gas
- financial opportunities for the project implementation
- availability and amount of extracted CMM
- opportunities for providing proper functioning of the project facilities and equipment
- availability of skilled and properly trained labour force capable to operate project equipment and facilities
- concentration of methane in the extracted gas
- level of heat demand,

influencing the baseline emissions were taken into account, as appropriate.

Data sources used for calculating emission reductions, such as

- emissions of methane as a result of venting
- electricity provided to the grid
- captive power and/or heat and vehicle fuel use
- on-site fuel consumption due to the project activity
- emissions from methane destruction

- emissions from NMHC destruction
- fugitive emissions of unburned methane

are clearly identified, reliable and transparent.

Emission factors, such as *EF CO_2,coal, EF CO_2,ng, EFheat, EF CO_2,gasoline, EF CO_2,diesel, EFvehicles,* as well as default values provided in the CO2 emissions reduction calculation spreadsheet to the current monitoring report as well as in Section B.1.2. to it, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The monitoring of the project is complete, effective and reliable. All relevant emission sources are covered by the monitoring plan, among them emissions from methane destroyed for electricity and heat production and gas filling stations, non-combusted methane in project scenario; emissions from release of methane into the atmosphere, production of power, heat or supply to gas grid in baseline scenario. All pertinent parameters are determined and monitored as prescribed. The collected data are safely stored during the whole monitoring period. The monitoring methodologies and sustaining records were sufficient to enable verification of emission reductions. During the verification process, no lacks of evidence are detected. The reporting procedures, which were described in the monitoring report and examined during the on-site visit, are found to reflect the ones defined by the monitoring plan.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The amount of actual emission reductions for 2011 equals to 620 534 tons of CO2 equivalent. Scheduled amount of emission reductions claimed in PDD version 4.4 equals to 1 490 420 tons of CO2 equivalent.
The difference in the amount of ERs claimed in PDD and scheduled is caused by the following objective reasons:

- significant reduction in the amount of mine works due to the accident in 2007. Out of four exploited courses only two are still producing. l1 and k8 courses were flooded leading to reduction in recovery of methane meant for utilization under the project;
- decrease in financing of project activities caused by force-majeure circumstances (accident in 2007 and global economic crises of 2008-2009). This resulted in significant project schedule delay.

Outstanding issues related to compliance of the monitoring plan with the monitoring methodology were not revealed.

3.5 Revision of monitoring plan (99-100)

During the time of the monitoring period under consideration no changes or revisions to the monitoring plan occurred. Monitoring procedure was carried out in accordance with the monitoring plan that was revised and positively determined by the AIE during the previous verification. The revisions made to the monitoring plan are contained in MR #10 version 2.0 dated 25/06/2011; the verification opinion on those revisions is presented in Verification Report UKRAINE-ver/0285/2011 version 01 dated 30/06/2011.

No outstanding issues related to the revision of monitoring plan were revealed.

3.6 Data management (101)

The implementation of data management procedures, as well as the emission reduction calculations are in accordance with the revised monitoring plan, including the quality control and quality assurance procedures.

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

Some of the monitoring parameters that are used in the calculation of the baseline and project emissions are measured directly with the use of special equipment while others are estimated with the use of appropriate coefficients.

The function of the monitoring equipment, including its calibration status, is in order.
The calibration and testing of the equipment used in the monitoring process as well as gas laboratory analyses are carried out by the following organizations:

- Donetsk Standardization, Metrology and Certification Centre;
- Tyumen Standardization, Metrology and Certification Centre;
- Mitallservice" LLC - Central Geological and Chemical Laboratory;
- CJSC "Ukrtechprylad TD";
- STCH "Hydrocentre" LLC;
- Respirator Mining Scientific and Research Institute.

The respective agreements with the third Parties involved in the project are in place and valid.

QC/QA procedure that has been established and functioning at the enterprise for a long time guarantees supplying accurate and reliable data for its further collecting, storing and monitoring. It comprises automated

electrical power commercial recording system (AECRS) that includes 12 meters and is also supplied by the microprocessor protection and control devices (REF) that together allow to record the readings of electrical power generation and consumption and their saving as well as performing their comparison (cross-checking). Introduction of a modern computerized control system allows for efficient on-line monitoring and reviewing work process performance at the Public Joint-Stock Company «Shakhta imeni O.F.Zasyadka» Central Dispatching office. In particular, for fuel and ignition gas consumption, their parameters and electrical power and heat power generated, data can be obtained on request every 10 seconds which enables any considerable deviation of monitored data to be promptly noticed and source of such deviation easily identified. This system improved operational process and eliminated lacks in control of SS CHP gas consumption.

Additionally, Management Systems ISO 9001:2008 and OHSAS 18001:2007 implemented at SS "Combined Heat and Power Plant" guarantee performing scheduled internal audits of various units of the enterprise and saving protocols in accordance with the requirements of those standards. It was seen during the site visit and can be proved by the verifiers. (Please, refer to the documents listed under ##81-90 in References Section Category 2 Documents of the present Verification Report).

General project management is implemented by the Deputy Director General of the PJSC «Shakhta im. O.F.Zasyadka» through supervising and coordinating activities of his subordinates, such as deputy director on surface degasification, chief electricity engineer, chief heating engineer, and deputy director on safety engineering.
On-site day-to-day management is implemented by the Director of SS CHP of PJSC «Shakhta im. O.F.Zasyadka» and two shift dispatchers responsible for cogeneration modules and gas treatment plant performance. During the daytime, workers of mechanical, electrical, heating and SS CHP CAM Services perform preventive measures and maintenance of all technological equipment, metering instruments as well as of automation tools and telemechanics. On-line information is transmitted directly to SS CHP dispatching office where it is controlled in online mode by shift supervisor. Based on information provided by dispatching office, monitoring engineer prepares monthly and annual reports on monitoring of electrical power, gas, heat power and emissions, and provides them to SS CHP Director and Deputy Director General of PJSC «Shakhta im. O.F.Zasyadka».
Movement of data subject to monitoring from the sources of emissions to the place where they are compiled and prepared for reporting, as well as respective roles and responsibilities of the personnel involved in monitoring procedure are presented in Figure 6 of the MR Section C.1.1.

The evidence and records used for the monitoring are maintained in a traceable manner.
Data collecting and storage systems are defined, roles and responsibilities have been assigned in Order “On the storage and archiving of SU CHP related reporting documentation” #1708k of 01/09/2010, as well as in EMISSION MONITORING MANUAL for SS “Combined Heat and Power Plant” updated to version 4 valid from 18/11/2011, and implemented, that was seen on site and can be confirmed by the verification team.

Trainings for CHP personnel are conducted monthly. Training programmes on GHG monitoring procedure are developed by SS CHP Chief Dispatcher and approved by SS CHP Director. Among the topics included in the programmes are the following:

- accounting of electrical and heat power generation and consumption
- accounting of methane generated and utilized
- calculation of GHG emissions from the methane consumed
- methodology applied for calculation of GHG emission reductions.

Safety training is performed once every three months, all employees take an exam in safety measures once a year.

Trainings are also provided by the equipment producers. The results of the trainings conducted are documented in special journal and saved.

The concept of materiality was verified and confirmed by the low level of uncertainty for measuring key parameters and further calculation of emission reductions that is stipulated by:

- applying the approved methodology and tools to it,
- manufacturer’s passports and certificates for the project equipment,
- accreditation certificates of the laboratories and metrological organizations involved in the project.

Outstanding issues related to data management, PP’s response and BVC’s conclusion are described in Appendix A Table 2 (refer to CL 02, CL 03, CL 04, CL 06, CL 07, CL 08, CL 09, CAR 02, CAR 03).

3.7 Verification regarding programmes of activities (102-110)

Not applicable

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 9th periodic verification of the JI project "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" project of PJSC «Shakhta im.O.F.Zasyadka» which applies the approved consolidated methodology ACM0008 version 03. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the monitoring report against 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 «Shakhta im.O.F.Zasyadka» is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring Plan as per determined changes. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 4.0 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

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

Reporting period: From 01/06/2011 to 31/12/2011

Baseline emissions	: 287135	tonnes of CO_2 equivalents.
Project emissions	: 31192	tonnes of CO_2 equivalents.
Emission Reductions	: 255943	tonnes of CO_2 equivalents.

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

Baseline emissions	: 174162	tonnes of CO_2 equivalents.
Project emissions	: 18 832	tonnes of CO_2 equivalents.
Emission Reductions	: 155330	tonnes of CO_2 equivalents.

Total for the Reporting period: From 01/06/2011 to 30/04/2012

Baseline emissions	: 461297	tonnes of CO_2 equivalents.
Project emissions	: 50024	tonnes of CO_2 equivalents.
Emission Reductions	: 411273	tonnes of CO_2 equivalents.

5 REFERENCES

Category 1 Documents:
Documents provided by PJSC «Shakhta im.O.F.Zasyadka» that relate directly to the GHG components of the project.

/1/ PDD“Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” version 4.4 of 27/03/2008
/2/ JI Monitoring Report “Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” version 1.0 dated 03/05/2012
/3/ JI Monitoring Report “Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” version 2.0 dated 21/05/2012
/4/ JI Monitoring Report “Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” version 3.0 dated 25/05/2012
/5/ JI Monitoring Report “Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko” version 4.0 dated 31/05/2012
/6/ Emissions reduction calculation spreadsheet version 1.0 dated 03/05/2012
/7/ Emissions reduction calculation spreadsheet version 2.0 dated 21/05/2012
/8/ Emissions reduction calculation spreadsheet version 3.0 dated 25/05/2012
/9/ Emissions reduction calculation spreadsheet version 4.0 dated 31/05/2012
/10/ Monitoring manual for SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”, version 4 valid from 18/11/2011
/11/ LoA No 2568/01-10 of March 17, 2006 issued by Ministry of Environmental Protection of Ukraine
/12/ LoA issued on January 30, 2007 by the Government of Japan
/13/ LoA issued on May 16, 2007 by the State of the Netherlands, acting through the Ministry of Economic Affaires and its implementing agency SenterNovem
/14/ LoA issued on May 4, 2007 by the Federal Office for the Environment of Switzerland

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/ 2006 IPCC Guidelines for National Greenhouse Gas Inventories
/3/ Order of the National Environmental Investment Agency of Ukraine № 75 dated 12/05/2011
/4/ Certificate on ISO 9001:2008 #UA226735 issued on 14/11/2011 valid

till 14/11/2014

/5/ Certificate on OHSAS 18001:2007 #UA226789 issued on 22/12/2011 valid till 22/12/2014

/6/ Information note AA #468291 from the State Register of Enterprises and Organizations of Ukraine issued to Separate Subdivision “Combined Heat and Power Plant” of Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” on 26/07/2011

/7/ Information note AA #468286 from the State Register of Enterprises and Organizations of Ukraine issued to Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” on 26/07/2011

/8/ Extract #578491 to Information note AA #468286 from the State Register of Enterprises and Organizations of Ukraine issued to Public Joint Stock Company “Shakhta imeni O.F. Zasyadka”

/9/ Statute of Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” registered # 1043, 1044 on 12/10/2011

/10/ Regulation on Separate Subdivision “Combined Heat and Power Plant” of Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” approved by the Supervisory Board of Public Joint Stock Company “Shakhta imeni O.F. Zasyadka”, Protocol #1 of 22/07/2011

/11/ License of National Committee for Electrical Energy Regulation of Ukraine #578491 on electric energy consumption from the grid issued for Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” on 16/08/2011

/12/ License of National Committee for Electrical Energy Regulation of Ukraine #578490 on electric energy supply to the grid issued for Public Joint Stock Company “Shakhta imeni O.F. Zasyadka” on 16/08/2011 valid till 14/06/2015

/13/ Monitoring dataflow, Monitoring manual for SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”

/14/ List of responsible persons for appropriateness and accuracy of filling data, SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”

/15/ Guidance on monitoring of chief engineer of SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”

/16/ Job description of chief engineer of SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”

/17/ Job description of dispatcher SS CHP of PJSC “Shakhta imeni O.F.Zasyadka”

/18/ Educational program on monitoring conduct of green-house gases emissions at separated subdivision ''Cogeneration electric power station'' of PJSC “Shakhta imeni O.F.Zasyadka”

/19/ Accreditation Certificate #006 issued to FDE "Tyumen Centre of Standardization, Metrology and Certification", valid till December 31, 2013

/20/ Attachment to Accreditation Certificate #006 dated December 17, 2008

/21/ Contract with SE “Donetsk Scientific and Production Centre of Standardization, Metrology and Certification" #13/2069 dated

08/12/2010 on providing metrological services

/22/ Certificate #1/62 dated 05/05/2011 valid till 05/05/2013 on carrying out checking of the measuring equipment issued for heat meter SA-94/2 by SE ”Donetskstandartmetrologiya”

/23/ Contract with CJSC “Ukrtechprylad TD” #481/396 dated 02/11/2011 valid till 31/12/2012

/24/ Contract with Mittalservice Ltd Central Geological and Chemical Laboratory #418 dated 10/03/12 on carrying out component content of gas samplings.

/25/ Mittalservice Ltd Central Geological and Chemical Laboratory Accreditation Certificate #VL-276/2011 issued on 14/11/2011, valid till 14/11/2014

/26/ Mittalservice Ltd Central Geological and Chemical Laboratory accreditation scopes

/27/ Contract with “STCH Hydrocentre Ltd” # 116 dated 04/05/2011 on decommissioning, checking, adjusting, commissioning of heat meters

/28/ Report on Water Use for 9 months of 2011 #75 dated 17/10/2011

/29/ Report on Water Use for 2011 #1dated 16/01/2012

/30/ Permit on stationary sources of air pollution # 1 410 136 900-81 issued 26/01/2012 valid from 26/01/2012 till 26/01/2017

/31/ Report on Water Use for the 1st quarter of 2012

/32/ Permit on Special Water Use #5033 issued 29/11/2011 valid till 01/12/2014

/33/ Permit on Waste Disposal #13.67 dated 22/06/2010 valid from 01/01/2011 till 01/01/2012

Statistic Report Form on waste management in 2011

/34/ Log-book of fuel gas accounting

/35/ Log-book of electrical energy accounting

/36/ Log-book of electrical energy

/37/ Percentage composition of gas samples, taken 19/09/2011 at PJSC “Shakhta imeni O.F.Zasyadka”

/38/ Percentage composition of gas samples, taken 19/09/2011 at PJSC “Shakhta imeni O.F.Zasyadka”

/39/ Percentage composition of gas samples, taken 14/12/2011 at PJSC “Shakhta imeni O.F.Zasyadka”

/40/ Percentage composition of gas samples, taken 14/12/2011 at PJSC “Shakhta imeni O.F.Zasyadka”

/41/ VPS-4 gas components laboratory research results dated 14/03/2012

/42/ VPS-2 gas components laboratory research results dated 14/03/2012

/43/ SS CHP gas components laboratory research results dated 14/03/2012

/44/ SS CHP gas components laboratory research results dated 14/03/2012

/45/ Transformer-1, 110 kV

/46/ Transformer-2, 110 kV

/47/ Dispatching room

/48/ Control station 1

/49/ Control module 1

/50/ Control module 3

/51/ Control module 5
/52/ Control module 7
/53/ Control module 9
/54/ Control module 11
/55/ Control station 2
/56/ Control module 2
/57/ Control module 4
/58/ Control module 6
/59/ Control module 8
/60/ Control module 10
/61/ Control module 12
/62/ Photo, cross-checking
/63/ AECAS(АСКУЕ) - report on generated electrical energy by modules 1-12 for April 2012
/64/ Form of daily registration of amount of generated electrical energy for April 2012
/65/ REF - report on generated electrical energy by modules 1-12 for April 2012
/66/ Form of registration of cross validation for the period from June 2011 till April 2012
/67/ Comparison form of relative difference in indications of generated electrical energy between AECAS(АСКУЕ) and REF
/68/ Registration form of heat generation by modules 1-12 for April 2012
/69/ Form of automatic accounting (ВКТМ) of gas volume April 2012
/70/ Form of cross validation (Gn5) of gas volume for April 2012
Comparison form of relative difference in indications of gas volume accounting between ВКТМ and Gn5
/71/ Passport on co-generation module #4424913
to be commissioned at Yakovlevskaya site
/72/ Passport on co-generation module #4424911
to be commissioned at Yakovlevskaya site
/73/ Passport on co-generation module #4424912
to be commissioned at Yakovlevskaya site
/74/ Passport on co-generation module #4505571
to be commissioned at Yakovlevskaya site
/75/ Passport on co-generation module #4365101
to be commissioned at Yakovlevskaya site
/76/ Passport on co-generation module #4934281
to be commissioned at Yakovlevskaya site
/77/ Passport on co-generation module #4505572
to be commissioned at Yakovlevskaya site
/78/ Electrician's working conditions card
/79/ Gas welder's working conditions card
/80/ Internal audit program for Automatic Control System of Technological Process Service approved on 09/05/2011
/81/ Internal Audit Report and Conclusion #1 dated 19/05/2011on carrying out internal audit at Automatic Control System of

Technological Process Service

/82/ Internal audit program for Mechanical Service approved on 20/09/2011

/83/ Internal Audit Report and Conclusion #5 dated 20/09/2011on carrying out internal audit at Mechanical Service

/84/ Internal audit program for Technical-operational Service approved on 10/07/2011

/85/ Internal Audit Report and Conclusion #3 dated 20/07/2011on carrying out internal audit at Technical-operational Service

/86/ Internal audit program for Heat Engineering Service approved on 20/10/2011

/87/ Internal Audit Report and Conclusion #5 dated 19/12/2011on carrying out internal audit at Heat Engineering Service

/88/ Internal audit program for Thermal and Mechanical Service approved on 10/06/2011

/89/ Internal Audit Report and Conclusion #2 dated 21/06/2011on carrying out internal audit at for Thermal and Mechanical Service

/90/ Log book on gas accounting and special events: Substitution on 01/08/2011 of BKT.M # 099 for BKT.M # 100

/91/ Log book on gas accounting and special events: Substitution on 03/01/2012 of BKT.M # 095 for BKT.M # 099

/92/ Log book on gas accounting and special events: Substitution on 17/03/2012 of BKT.M # for BKT.M # 095

/93/ Log book on gas accounting and special events: Nullification of BKT.M # 094 on 29/03/2012

/94/ Photo-Electricity meter Elster-Metronika #01116374

/95/ Photo-Electricity meter Elster-Metronika #01116376

/96/ Photo-Electricity meter Elster-Metronika #01117846

/97/ Photo-Electricity meter Elster-Metronika #01117849

/98/ Photo-Electricity meter Elster-Metronika #01117851

/99/ Photo-Electricity meter Elster-Metronika #01117852

/100/ Photo-Electricity meter Elster-Metronika #01117855

/101/ Photo-Electricity meter Elster-Metronika #01117856

/102/ Photo-Electricity meter Elster-Metronika #01132765

/103/ Photo-Electricity meter Elster-Metronika #01132766

/104/ Photo-Electricity meter Elster-Metronika #01117845

/105/ Photo-Electricity meter Elster-Metronika #01122650

/106/ Photo-Electricity meter Elster-Metronika #01117848

/107/ Photo-Electricity meter Elster-Metronika #01103251

/108/ Photo-Electricity meter Elster-Metronika #01103208

/109/ Certificate # 1/62 on state checking of heat meter ASWEGA SA-94/2M #22903 issued 05/05/2011 valid till 05/05/2013

/110/ Certificate # 4311.2 on checking of Fuel gas amount meter DRG.M-10000 #103 issued 26/07/2011 valid till 26/07/2014(BKT.M-1)

/111/ Passport -Fuel gas temperature meter Metran-274-02 #509669(BKT.M-1)

/112/ Passport #2214 - Fuel gas pressure meter Vegabar 14 #

14447569(BKT.M-1)

/113/ Certificate # 4311.3 on checking of Fuel gas amount meter DRG.M-10000 #109 issued 26/07/2011 valid till 26/07/2014(BKT.M-1)

/114/ Passport-Fuel gas temperature meter Metran-274-02 #510753(BKT.M-1)

/115/ Passport #2213 - Fuel gas pressure meter Vegabar 14 # 14536342(BKT.M-1)

/116/ Certificate # 4311.1 on checking of fuel gas amount meter DRG.M-10000 #102 issued 26/07/2011 valid till 26/07/2014(BKT.M-1)

/117/ Passport: Fuel gas temperature meter Metran-274-02 #510745(BKT.M-1)

/118/ Passport #2212 - Fuel gas pressure meter Vegabar 14 # 14536534(BKT.M-1)

/119/ Certificate # 3872.5 on checking of fuel gas amount meter DRG.M-10000 #108 issued 28/04/2011 valid till 28/04/2014(BKT.M-2)

/120/ Passport - Fuel gas temperature meter Metran-274-02 #510735(BKT.M-2)

/121/ Passport # 2218 - Fuel gas pressure meter Vegabar 14 # 14568471(BKT.M-2)

/122/ Certificate # 3872.4 on checking of fuel gas amount meter DRG.M-10000 #104 issued 28/04/2011 valid till 28/04/2014Photo-Fuel gas amount meter DRG.M-10000 #104(BKT.M-2)

/123/ Passport-Fuel gas temperature meter Metran-274-02 #509670(BKT.M-2)

/124/ Passport # 2219-Fuel gas pressure meter Vegabar 14 # 14536186(BKT.M-2)

/125/ Certificate # 3872.3 on checking of fuel gas amount meter DRG.M-10000 #097 issued 28/04/2011 valid till 28/04/2014 (BKT.M-2)

/126/ Passport-Fuel gas temperature meter Metran-274-02 #510733(BKT.M-2)

/127/ Passport # 2220-Fuel gas pressure meter Vegabar 14 # 14536368(BKT.M-2)

/128/ Certificate # 4127.3 on checking of fuel gas amount meter DRG.M-10000 #105 issued 27/06/2011 valid till 27/06/2014 (BKT.M-4)

/129/ Passport-Fuel gas temperature meter Metran-274-02 #510754(BKT.M-4)

/130/ Passport #2221-Fuel gas pressure meter Vegabar 14 #14568589(BKT.M-4)

/131/ Certificate # 4127.1 on checking of fuel gas amount meter DRG.M-10000 #96 issued 27/06/2011 valid till 27/06/2014(BKT.M-4)

/132/ Passport-Fuel gas temperature meter Metran-274-02 #510755(BKT.M-4)

/133/ Passport # 2222-Fuel gas pressure meter Vegabar 14 #14536306(BKT.M-4)

/134/ Certificate # 4127.2 on checking of fuel gas amount meter DRG.M-10000 #100 issued 27/06/2011 valid till 27/06/2014 (BKT.M-4)

/135/ Passport-Fuel gas temperature meter Metran-274-02

#510747(BKT.M-4)
/136/ Passport #2223-Fuel gas pressure meter Vegabar 14 #14536606(BKT.M-4)
/137/ Certificate # 4218.3 on checking of fuel gas amount meter DRG.M-10000 #101 issued 14/07/2011 valid till 14/07/2014(BKT.M-3)
/138/ Passport-Fuel gas temperature meter Metran-274-02 #510738(BKT.M-3)
/139/ Passport #2217-Fuel gas pressure meter Vegabar 14 #14568610(BKT.M-3)
/140/ Certificate # 4218.2 on checking of fuel gas amount meter DRG.M-10000 #099 issued 14/07/2011 valid till 14/07/2014 (BKT.M-3)
/141/ Passport-Fuel gas temperature meter Metran-274-02 #510742(BKT.M-3)
/142/ Passport # 2216-Fuel gas pressure meter Vegabar 14 #14536304(BKT.M-3)
/143/ Certificate # 4218.1 on checking of fuel gas amount meter DRG.M-10000 #098 issued 14/07/2011 valid till 14/07/2014 (BKT.M-3)
/144/ Passport - Fuel gas temperature meter Metran-274-02 #510744(BKT.M-3)
/145/ Passport #2215 - Fuel gas pressure meter Vegabar 14 #14568573(BKT.M-3)
/146/ Certificate on calibration - Gas meter G250 # 9771
/147/ Universal-02 #6023
/148/ AO2040 #3.244705.5
/149/ AO2040 #3.244704.5
/150/ G 250 Lg-K-80-1/30 #9771
/151/ Vegabar 178 #12307278
/152/ Flow meter Keuter #167
/153/ Note on the supply of gas/methane from degasification wells. PJSC“Shakhta imeni O.F.Zasyadka” for June 2011
/154/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for July 2011
/155/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for August 2011
/156/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for September 2011
/157/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for October 2011
/158/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for November 2011
/159/ Note on the supply of gas/methane form degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for December 2011
/160/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for January 2012
/161/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for February 2012
/162/ Note on the supply of gas/methane from degasification wells.

PJSC “Shakhta imeni O.F.Zasyadka” for March 2012
/163/ Note on the supply of gas/methane from degasification wells. PJSC “Shakhta imeni O.F.Zasyadka” for April 2012
/164/ Annual Schedule of carrying out Internal Audits within the SS CHP in 2012 approved on 20/12/2011
/165/ Photo – Module 8, BKT.M #102822
/166/ Photo – Generator 8, Fuel gas amount meter DRG.M-10000 #105
/167/ Photo – Generator 8, Fuel gas pressure meter Vegabar 14 #14568589
/168/ Photo – Generator 8, Fuel gas temperature meter Metran-274-02 #510754
/169/ Photo – Generator 10, Fuel gas amount meter DRG.M-10000 #096
/170/ Photo – Generator 10, Fuel gas pressure meter Vegabar 14 #14536306
/171/ Photo – Generator 10, Fuel gas temperature meter Metran-274-02 #510755
/172/ Photo – Generator 12, Fuel gas amount meter DRG.M-10000 #100
/173/ Photo – Generator 10, Fuel gas pressure meter Vegabar 14 #14568606
/174/ Photo – Generator 10, Fuel gas temperature meter Metran-274-02 #510747
/175/ Photo – Readings of heat meter ASWEGA SA-94/2M #22903
/176/ Yakovlevsky construction site

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/ Boris Bokiy – Deputy Director General, PJSC «Shakhta im. O.F.Zasyadka»
/2/ Yevgeniy Berezovskiy – SS CHP Director, PJSC «Shakhta im. O.F.Zasyadka»
/3/ Valeriy Cherednikov – Monitoring and Gas Treatment Engineer, PJSC «Shakhta im. O.F.Zasyadka»
/4/ Maksim Mynka – SS CHP Chief Dispatcher, PJSC «Shakhta im. O.F.Zasyadka»
/5/ Vadim Nosach – SS CHP Chief Engineer, PJSC «Shakhta im. O.F.Zasyadka»
/6/ Vasiliy Natarin – AGFCP Chief, PJSC «Shakhta im. O.F.Zasyadka»
/7/ Vladimir Reznichenko – Electrical Workshop Senior Mechanic, PJSC «Shakhta im. O.F.Zasyadka»
/8/ Elena Kopylova – Lead Engineer, Environment Protection Dapertment, PJSC «Shakhta im. O.F.Zasyadka»
/9/ Svetlana Lyubarets – Director, LLC “Carbon Emissions Partnership Technic”

APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	Written project approvals from Japan, the Netherlands and Switzerland have been issued by the DFP of those Parties when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	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?	There was a delay in the implementation schedule if compared with implementation schedule defined in PDD version 4.4 Within the monitoring period, following project parts have not been introduced: *Electrical power:* Yakovlevskaya SS CHP is not in operation at this moment. At this site, electrical power is not being generated; as a result, GEN_{CHP} includes only net electrical power generated by Vostochnaya SS CHP; *Heat power:*	CAR01 CL01 CL05 CAR04	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		During this monitoring period, there is no infrastructure for heat supply to four sites of the Mine and municipal heating network, except for heat power supply from Vostochnaya SS CHP to Vostochnaya site. In view of this, within this monitoring period, monitoring of the following variable data was not performed: $HEAT_{deliv,DH,y}$; $HEAT_{deliv,yak,y}$; $HEAT_{deliv,centr,y}$. *Coal Mine Methane(CMM), utilized at SS CHP:* As Yakovlevskaya SS CHP was not operating within this monitoring period; CMM was not utilized at this SS CHP. Therefore, $MM_{CHP,y}$ includes only CMM, utilized by Vostochnaya SS CHP; *Coal Mine Methane (CMM) utilized at AGFCP.* Out of four scheduled fuel stations (one - at Vostochnaya site, one - at Centralnaya site, and two - at Yakovlevskaya site), within this monitoring period, only AGFCS at Vostochnaya site has been operating. Therefore for $MM_{GAS,y}$ monitoring, only measured amount of gas supplied to this gas fueling station was used. **CAR 01.** It is stated in the determined PDD that in accordance with ACM0008 only		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		methane that is being destroyed by the project should be measured. Nevertheless in the MR all extracted methane will be reported indicating the amount of non-utilized methane (vented CMM). Please, provide the amount of non-utilized methane in the reported monitoring period. **CL 01.** Please, provide documents that state changes in the form of ownership of the enterprise that took place in the current monitoring period. **CL 05.** Please provide the amount of actual emission reductions for 2011 along with the justification of difference in the amount of ER claimed in the PDD. **CAR 04.** The planned installation dates for "Heat delivery from CHP modules, and shut-down of boilers at Centralnaya site" and "Commissioning of the 1st SS CHP unit at Yakovlevskaya site" indicated in Table 2 of the current MR differ from the ones presented in the previous MR. Please, check this and make corrections respectively.		
93	What is the status of operation of the project during the monitoring	The actual status of operation of the proposed project is as follows:	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	period?	• Generation of electricity and heat at the Vostochnaya site of the mine (12 module CHP) • Utilisation of methane as vehicle fuel (Automobile Gas Filling Compressor Plant) • Installation of 7 CHP modules that are not operational yet at Yakovlevskaya site		
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?	Monitoring of GHG emission reductions occurred in accordance with the revised Monitoring Plan (Please, refer to Section 3.5. of the present verification report.	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	For calculating the emission reductions key factors, e.g. those listed Section B.2. of the determined PDD version 4.4., as well as Section 3.4. of the present Verification Report., influencing the baseline emissions as well as risks associated with the project were taken into account, as appropriate.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Data sources used for calculating emission reductions are clearly identified, reliable and transparent. For more detailed information, please, refer to Section B.3. of the determined PDD version 4.4., as well as Section 3.4. of the present Verification Report.	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, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice. They are provided in the CO2 emissions reduction calculation spreadsheet to the present MR as well as in Sections B.2.1. of the MR.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner	OK	OK
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	During the time of the monitoring period under consideration no changes or revisions to the monitoring plan occurred. Monitoring procedure was carried out in accordance with the monitoring plan that was revised and	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		positively determined by the AIE during the previous verification. The revisions made to the monitoring plan are contained in MR #10 version 2.0 dated 25/06/2011; the verification opinion on those revisions is presented in Verification Report UKRAINE-ver/0285/2011 version 01 dated 30/06/2011.		
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?	N/A	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?	Data collection procedure is carried out in accordance with the revised monitoring plan, including the quality control and quality assurance procedures. It's exhaustive description is provided in EMISSION MONITORING MANUAL for Separate Subdivision "Combined Heat and Power Plant" of Public Joint Stock Company "Shakhta imeni O.F. Zasyadka" version 4 valid from 18/11/2011, that has been presented to the verifiers during the site visit and is also described in Sections B.1.3. (Calibration procedure), B.2. (Data collection), B.3. (Data	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		processing and archiving) and C.2. (Quality assurance and quality control measures).		
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	The function of the monitoring equipment, including its calibration status, is in order **CAR 02.** Please remove the dates of calibration that don't refer to the current monitoring period from Tables 11, 12, 13, 14, 20, 21, 22, 23 providing the project measuring equipment	CAR 02	OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	**CL 02.** On page 6 in Section B. of the MR it is written the following: "In the first table, converted data for calculation of actual data are shown". Please make it clear where exactly it is shown. **CL 03.** Please provide contracts that were renewed or newly signed with the Third Parties involved in the project. **CL 04.** Please provide environmental statistic report forms. **CL 06.** Please provide documented evidence on the amount of methane consumed at AGFCP for the current monitoring period.	CL02 CL03 CL04 CL06 CL07 CL08 CL09	OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 07. Please, clarify whether "Hydrocentre Ltd" that provides services on decommissioning, checking, adjusting, commissioning of heat meters, as well as CJSC "Ukrtechpylad TD" are involved in the project and thus are the Third Parties **CL 08.** Please provide for verification the updated version of the Monitoring Manual **CL 09.** Please provide documented evidence on the internal audits that were performed at the enterprise during the current monitoring period.		
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	**CAR 03.** Please pay attention that Section C.2. of the MR doesn't contain Limited Liability Company Mittalservice as a Third Party providing services on the gas laboratory analysis.	CAR03	OK
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	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	enhancements of removals generated by each JPA?			
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 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	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 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	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the JISC.s ex ante assessment? (Optional)			
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

Date of first issue: 18/05/2012

Date of second issue: 23/05/2012

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion

CAR 01. It is stated in the determined PDD that in accordance with ACM0008 only methane that is being destroyed by the project should be measured. Nevertheless in the MR all extracted methane will be reported indicating the amount of non-utilized methane (vented CMM). Please, provide the amount of non-utilized methane in the reported monitoring period.	92	In the reported monitoring period (01.06.2011 – 30.04.2012) the total amount of methane extracted and recovered during mining works and as a result of mine ventilation, including methane obtained from surface wells drilled into the gob at PJSC "Shakhta im. O.F. Zasyadka" equals to 61 137 324m³. The amount of non-utilized, vented methane equals to 36 639 992 m3. According to PDD ventilation air methane (CMM as from mining) is vented. Such methane cannot be utilized due to low methane concentration in ventilation air. Therefore, amount of ventilation air methane is not included into the project and, thus, not accounted. This is states in PDD.	CAR 01 is closed based on the information presented.
CL 01. Please, provide documents that state changes in the form of ownership of the enterprise that took place in the current monitoring period.	92	Relevant documents were provided for verification.	CL 01 is closed as the required documents were submitted for verification.
CAR 02. Please remove the dates of calibration that don't refer to the current monitoring period from Tables 11, 12, 13, 14, 20, 21, 22, 23 providing the project measuring equipment	101 (b)	Corresponding corrections were made to Monitoring Report #11, version 2.0.	Issue is closed based on the respective corrections made to the MR.

CL 02. On page 6 in Section B. of the MR it is written the following: "In the first table, converted data for calculation of actual data are shown". Please make it clear where exactly it is shown.	101 (c)	On page 6, Section B of MR the uncertainty has been corrected as follows: "Readings of meters are shown in table 4 and table 5. Calculation readings for electrical power are shown in table 6." Corresponding corrections were made to Monitoring Report #11, version 2.0.	Issue is closed based on the corresponding correction made to the MR version 2.0.
CL 03. Please provide contracts that were renewed or newly signed with the Third Parties involved in the project.	101 (c)	Relevant documents were provided for verification.	CL 03 is closed as the required documents were submitted for verification.
CL 04. Please provide environmental statistic report forms.	101 (c)	Relevant documents were provided for verification.	CL 04 is closed as the required documents were submitted for verification.
CAR 03. Please pay attention that Section C.2. of the MR doesn't contain Limited Liability Company Mittalservice as a Third Party providing services on the gas laboratory analysis.	101 (d)	Corresponding corrections were made to Monitoring Report #11, version 2.0.	Issue is closed based on the corresponding correction made to the MR version 2.0.

CL 05. Please provide the amount of actual emission reductions for 2011 along with the justification of difference in the amount of ER claimed in the PDD.	92	The amount of actual emission reductions for 2011 equals to 620 534 tons of CO2 equivalent. Scheduled amount of emission reductions claimed in PDD version 4.4 equals to 1 490 420 tons of CO2 equivalent. The difference in the amount of ERs claimed in PDD and scheduled is caused by the following objective reasons: • significant reduction in the amount of mine works due to the accident in 2007. Out of four exploited courses only two are still producing. l1 and k8 courses were flooded leading to reduction in recovery of methane meant for utilization under the project; • decrease in financing of project activities caused by force-majeure circumstances (accident in 2007 and global economic crises of 2008-2009). This resulted in significant project schedule delay.	The project participants provided the amount of actual emission reductions for 2011 along with the justification of their inconsistency with the emission reductions declared in the PDD. CL 05 is closed.

CL 06. Please provide documented evidence on the amount of methane consumed at AGFCP for the current monitoring period.	101 (c)	Relevant documents were provided for verification.	CL 06 is closed as the required documents were submitted for verification.

CL 07. Please, clarify whether "Hydrocentre Ltd" that provides services on decommissioning, checking, adjusting, commissioning of heat meters, as well as CJSC "Ukrtechpylad TD" are involved in the project and thus are the Third Parties	101 (c)	*Response #1:* STCH "Hydrocentre" LLC in accordance with the Contract provides services on decommissioning, checking, adjusting, commissioning of heat meters. CJSC "Ukrtechprylad TD" in accordance with the Contract provides services on maintenance and metrological checks of equipment via drawing up agreements with enterprises of Derzhspozhyvstandard. That is CJSC "Ukrtechprylad TD" is a representative of Tyumen Standardization, Metrology and Certification Centre and thus is the Third party involved. Relevant documents were provided for verification.	*Conclusion on Response #1:* CL 07 is not closed. As it follows from the PP's response, the company STCH "Hydrocentre" LLC is the Party to the project. The term of contract #116 concluded with STCH "Hydrocentre" LLC on 04/05/2011 has expired on December 31, 2011. Please, explain whether this contract was prolonged and provided for verification. Please, update Sections B.1.4. and C.2. of the MR indicating all Parties involved in the project. *Final conclusion:* Based on the clarification provided, required documents submitted and relevant corrections made to the MR, CL 07 is closed.

		Response #2: As mentioned in Monitoring Report #11, version 01 calibration interval for heating energy metering system is two years. The previous calibration was done on the ground of Contract #116 dated 04/05/2011. Before the date for the next calibration a new Contract shall be drawn up. Corresponding complementation were written in Sections B.1.4. and C2 of Monitoring Report #11, version 3.0.	
CL 08. Please provide for verification the updated version of the Monitoring Manual	101 (c)	Relevant documents were provided for verification.	CL 08 is closed as the required documents were submitted for verification.

CL 09. Please provide documented evidence on the internal audits that were performed at the enterprise during the current monitoring period.	101 (c)	Relevant documents were provided for verification.	The project participants provided the plans and programmes of internal audits, as well as Reports and Chief Auditor Conclusions on Internal Audits conducted during the reported monitoring period in accordance with the requirements of ISO 9001:2008 standard at the following SS CHP facilities: • heat engineering department; • automatic control system of technological process; • mechanical department; • technical-operational department; • thermal and mechanical department It is stated in the above mentioned Conclusions that Quality Management System implemented at SS CHP is operational and complies with the requirements of IDO 9001:2008 Standard. CL 09 is closed.

CAR 04. The planned installation dates for "Heat delivery from CHP modules, and shut-down of boilers at Centralnaya site" and "Commissioning of the 1st CHP modules at Yakovlevskaya site" indicated in Table 2 of the current MR differ from the ones presented in the previous MR. Please, check this and make corrections respectively.	92	Installation dates as per PDD were corrected.	CAR 04 is closed based on the due corrections made to the MR.
FAR 01 (left from the previous verification period). Please, provide the cards of working places to make it sure the level of noise and vibration at SU CHP is in conformity with the one legally established.		Cards containing protocols on examination of labour conditions at an electrician and a gas welder work places that was carried out on 13/07/2011 were presented for verification	**Issue is closed** based on the required documents that were provided for verification.