VERIFICATION REPORT

LE "COAL MINE NAMED AFTER A.F. ZASYADKO"

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

7TH PERIODIC
(01 AUGUST 2010 – 31 DECEMBER 2010)

REPORT NO.UKRAINE /0207/2011
REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Report No. UKRAINE /0207/2011

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

Date of first issue: 02/02/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: LE "Coal Mine named after A.F. Zasyadko"	Client ref.: Boris Bokiy

Summary:
Bureau Veritas Certification has made the 7st 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 LE "Coal Mine named after A.F. Zasyadko" 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, Project Design Document and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

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

The verification is based on the Monitoring Report (covers August, 1st 2010 – December, 31st 2010), the determined PDD, version 4.4 of 27/03/2008, and supporting documents made available to Bureau Veritas Certification by the project participant.
In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. 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 331812 tons of CO_2eq for the monitoring period.

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/0207/2011	Subject Group: JI	
Project title: "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko"		
Work carried out by: Ivan Sokolov - Team Leader, Lead Verifier Igor Antipko - Team Member, Technical Specialist		
Work reviewed by: Leonid Yaskin - Internal Technical Reviewer		
Work approved by: Flavio Gomes - Operational Manager		
Date of this revision: 02/02/2011	Rev. No.: 01	Number of pages: 34

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Table of Contents *Page*

1 INTRODUCTION

LE "Coal Mine named after A.F. Zasyadko" 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 and 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:

Ivan G. Sokolov, Dr. Sci. (biology, microbiology)

Bureau Veritas Certification Team Leader, Climate Change Verifier

Igor Antipko (Mining Electro-Mechanics)

Bureau Veritas CertificationTechnical Specialist

This verification report was reviewed by:

Leonid Yaskin
Bureau Veritas Certification Internal Yechnical Reviewer

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 01.1 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 01/01/2011 and additional background documents submitted by LE "Coal Mine named after A.F. Zasyadko" were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Lease Enterprise Coal Mine named after A.F. Zasyadko revised the MR and resubmitted it as version 2.0 of 31/01/2011.

The verification findings presented in this report relate to the Monitoring Report versions 1.0 and 2.0 and project as described in the determined PDD version 4.4 of 27/03/2008.

2.2 Follow-up Interviews

On January 17-18, 2011 Bureau Veritas Certification verification team performed interviews with project stakeholders at Lease Enterprise Zasyadko Coal Mine site to confirm selected information and to resolve issues identified in the document review. Representatives of Lease Enterprise Zasyadko Coal Mine and LLC "Carbon Emission 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
Lease Enterprise Coal Mine named after A.F. Zasyadko	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 Emission 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 3 Corrective Action Requests, 10 Clarification Requests, and 1Forward Action Requests.

Remaining issues (FAR's) from previous verification:

Forward Action Request 01

To make assessment of emission reduction achieved in the year 2010 compared to the estimated emission reductions declared in the PDD version 4.4. during the next periodic verification.

Conclusion of the verification team

Monthly breakout of emission reduction achieved in 2010 were provided by the project participants in the excel spreadsheet. (It is listed under No. 99 in the Category 2 Documents of Reference section of the present Verification report).

FAR 01 is closed.

Forward Action Request 02

Please describe the sampling procedures of the gas analysis in the Monitoring Manual.

Conclusion of the verification team

The sampling procedure is amended to the EMISSION MONITORING MANUAL as an attachment 4. (No. 26 in the Category 2 Documents of Reference section of the present Verification report).

FAR 02 is closed.

Forward Action Request 03

To improve training procedure, please, include topics of all planned

training sessions into examination logbook.

Conclusion of the verification team
Topics of training sessions are included into examination logbook (No. 24 in the Category 2 Documents of Reference section of the present Verification report).

FAR 03 is closed.

Forward Action Request 04
For the next periodic verification, appropriate saving and archiving of initial data logbooks should be insured.
In order to meet the JISC requirements on data saving and archiving, an Order on archiving of all project related documentation for two years after the last ERU transmission should be developed and included to the Emission Monitoring Manual. All persons responsible for data collection and monitoring should be aware of the provisions of this Order.

Conclusion of the verification team
In order to meet the JISC requirements on data saving and archiving, Order "On the storage and archiving of SU CHP related reporting documentation" No.1708k of 01/09/2010 was issued. Persons responsible for data collection and monitoring are made aware of the provisions of this Order.
The archive (storage space) for keeping the project related documentation was organized at SU CHP and presented to the verification team during the site visit. (No. 28 in the Category 2 Documents of Reference section of the present Verification report).

FAR 04 is closed.

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

3.1 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 Reference section of this report)

The abovementioned written approvals are unconditional.

3.2 Project implementation (92-93)

The present JI project implies utilization of Coal Mine Methane (CMM) from the Coal Mine named after A.F. Zasyadko 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.

At the time of previous and current monitoring periods the delay in the installation of some project units as to the determined PDD was noted.

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 SU CHP modules at Vostochnaya site	January 2006	January 2006
Commissioning of the 12th SU CHP modules at Vostochnaya site	April 2006	April 2006
Heat delivery from SU CHP modules to, and shut-down of boilers Vostochnaya site	September 2006	September 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 delivery from SU CHP modules to, and shut-down of boilers Yakovlevskaya site	July 2008	Delayed due to accident 2007, planned for October 2012
Heat delivery from SU CHP modules to, and shut-down of boilers Centralnaya site	May 2008	Delayed due to accident 2007, planned for October 2012
Commissioning of the 1st SU CHP unit at	July 2009	Delayed due to

Yakovlevskaya site		accident 2007, planned for December 2011
Commissioning of 6th SU CHP unit at Yakovlevskaya site	December 2009	Delayed due to accident 2007, planned for March 2012
Supply of heat to DH - system	September 2009	Delayed due to accident 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.

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)

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.

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

The monitoring occurred in accordance with the monitoring plan included in the PDD version 4.4. dated 27 March 2008 regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

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, including default emission factors, provided in the CO2 emissions reduction calculation spreadsheet to the current MR are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

In order to provide safety of parameters monitored, some metering devices have been substituted. Parameters to be monitored as well as formulas for performing calculation have not been changed.
To update and improve the SU CHP unit measuring system, starting from January 1, 2008, primary and secondary metering devices/ meters have been added/ substituted. In addition, new metering device blocks for high concentration flow metering measurement have been installed:

- Universal 1 metering system for ignition gas at SU CHP unit instead of Gn6 with their sensors;
- Universal 2 metering system for fuel gas at AGFCP, additionally to gas fuelling stations equipment;
- BKT.M metering system for fuel gas in machine rooms, instead of Keuter device, ADM Electronic at gas treatment facility.

The detailed description of layout and work of metering equipment is provided in Section B of the current MR.

The monitoring of the project is complete, effective and reliable and is being implemented in accordance with monitoring plan contained in the determined PDD. All relevant emission sources are covered by the monitoring plan. All pertinent parameters are determined and monitored as prescribed. The collected data are 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 significant lacks of evidence are detected. The

reporting procedures, which were described in the final MR 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.

3.4 Revision of monitoring plan (99-100)

Not applicable

3.5 Data management (101)

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

The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. These procedures are mentioned in the section "References" of this report. These procedures are mentioned in items 1, 16, 18, 21, 27, 93, 94 in Category 2 Documents of Section "References" of the present Verification Report.

The function of the monitoring equipment, including its calibration status, is in order.

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 Mine named after A.F. Zasyadko, valid from 01/08/2010, and implemented, that was seen on site and can be confirmed by the verification team.

The data collection and management system for the project is in accordance with the monitoring plan.

3.6 Verification regarding programmes of activities (102-110)

Not applicable

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 7th periodic verification of the JI project "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" project of LE "Coal Mine named after A.F.Zasyadko",

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 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 LE "Coal Mine named after A.F. Zasyadko" is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring and Verification Plan indicated in the final PDD version 4.4. 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 Reports versions 1.0 and 2.0 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. 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 01/08/2010 to 31/12/2010

Baseline emissions	: 373660	t CO_2 equivalents.
Project emissions	: 41848	t CO_2 equivalents.
Emission Reductions	: 331812	t CO_2 equivalents.

5 REFERENCES

Category 1 Documents:
Documents provided by the project participants that relate directly to the GHG components of the project.

/1/ PDD"Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" version 4.4 of 27/03/2008
/2/ Monitoring Report # 8 "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" version 2.0 dated 09/09/2010
/3/ Monitoring Report # 9 "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" version 1.0 dated 01/01/2011
/4/ Monitoring Report # 9 "Utilization of Coal Mine Methane at the Coal Mine named after A.F. Zasyadko" version 2.0 dated 31/01/2011
/5/ EMISSION MONITORING MANUAL for Mine named after A.F. Zasyadko, valid from 01/08/2010
/6/ 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"
/7/ LoA No 2568/01-10 of March 17, 2006 issued by Ministry of Environmental Protection of Ukraine
/8/ LoA issued on January 30, 2007 by the Government of Japan
/9/ LoA issued on May 16, 2007 by the State of the Netherlands, acting through the Ministry of Economic Affaires and its implementing agency SenterNovem
/10/ 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/ EMISSION MONITORING MANUAL for Mine named after A.F. Zasyadko, valid from 01/08/2010
/2/ Gas volume calculator. Universal.
/3/ Universal # 2, # 6023
/4/ Note on the supply of gas/methane form degasification wells. LE "Coal Mine named after A.F.Zasyadko" for august 2010
/5/ Note on the supply of gas/methane form degasification wells. LE "Coal Mine named after A.F.Zasyadko" for October 2010
/6/ Note on the supply of gas/methane form degasification wells. LE "Coal Mine named after A.F.Zasyadko" for November 2010
/7/ Note on the supply of gas/methane form degasification wells. LE

"Coal Mine named after A.F.Zasyadko" for December 2010

/8/ Note on the supply of gas/methane form degasification wells. LE "Coal Mine named after A.F.Zasyadko" for September 2010

/9/ Transformer-1, 110 kV

/10/ Transformer-2, 110 kV

/11/ Note for August-December 2010

/12/ Electrobalance, structure of energy equipment and report on electro stations operation in 2010.

/13/ Annex to form # 24-power engineering. Electrobalance, structure of energy equipment and report on electro stations operation in 2010.

/14/ Log-book of fuel gas accounting

/15/ Log-book of electrical energy accounting

/16/ Log-book of electrical energy

/17/ List of responsible persons for appropriateness and accuracy of filling data

/18/ Log-book of electrical energy

/19/ List of responsible persons for appropriateness and accuracy of filling data

/20/ LE "Coal Mine named after A.F.Zasyadko". Order # 2127a of 27.12.2009. On formation of structural subdivisions.

/21/ Regulation on structural subdivision ''Cogeneration electric power station'' of LE "Coal Mine named after A.F.Zasyadko"

/22/ Guidance on monitoring of chief engineer of structural subdivision ''Cogeneration electric power station''

/23/ Job description of chief engineer of structural subdivision ''Cogeneration electric power station''

/24/ Educational program on monitoring conduct of green-house gases emissions at structural subdivision ''Cogeneration electric power station'' of LE "Coal Mine named after A.F.Zasyadko"

/25/ Letter from the Ministry of Coal Industry of Ukraine about the method of selection of gas samples and a certificate of accreditation.

/26/ Method of gas sampling

/27/ Log-book of examination with monitoring conduct of greenhouse gases at SU CHP of LE "Coal Mine named after A.F.Zasyadko"

/28/ Order # 1708 of 01.09.2010 on SU CHP related documentation saving and archiving

/29/ Note АБ № 213975 USREOU. Structural subdivision cogeneration electric power station of LE "Coal Mine named after A.F.Zasyadko"

/30/ Notarial copy

/31/ Letter of attorney

/32/ Technical data - 4-stroke gas motor of internal combustion.

/33/ Letter from the Ministry of Coal Industry of Ukraine about the results of gas sampling. № 10/1536 of 07.12.2010

/34/ Percentage composition of gas samples, taken 06.12.10 at LE

"Coal Mine named after A.F.Zasyadko"

/35/ Percentage composition of fuel and precombustion gases, taken 06.12.10 at LE "Coal Mine named after A.F.Zasyadko"

/36/ Letter from the Ministry of Coal Industry of Ukraine about the results of gas sampling. № 10/1169 of 22.09.2010

/37/ Percentage composition of gas samples, taken 20.09.10 at LE "Coal Mine named after A.F.Zasyadko"

/38/ Percentage composition of fuel and precombustion gases, taken 20.09.10 at LE "Coal Mine named after A.F.Zasyadko"

/39/ Technical data. Installation.

/40/ Log-book of heat energy accounting and indication of network water meter

/41/ List of responsible persons for appropriateness and accuracy of filling data

/42/ Log-book of heat energy accounting and indication of network water meter

/43/ List of responsible persons for appropriateness and accuracy of filling data

/44/ Log-book of heat energy accounting

/45/ List of responsible persons for appropriateness and accuracy of filling data

/46/ Technical characteristics (for module)

/47/ Heat gas # 1

/48/ Heat meter, SA-94/2M, № 22903

/49/ Heat meter, CA-97/1, № 140501

/50/ Heat meter SA-94/1, № 140487

/51/ Heat meter CA-97/1, № 140499

/52/ Generator 1

/53/ Generator 3

/54/ Generator 5

/55/ Generator 7

/56/ Generator 9

/57/ Generator 11

/58/ Generator 12

/59/ Generator 10

/60/ Generator 8

/61/ Generator 6

/62/ Generator 4

/63/ Generator 2

/64/ Dispatching room

/65/ Control station 1

/66/ Control module 1

/67/ Control module 3

/68/ Control module 5

/69/ Control module 7

/70/ Control module 9

/71/ Control module 11
/72/ Control station 2
/73/ Control module 2
/74/ Control module 4
/75/ Control module 6
/76/ Control module 8
/77/ Control module 10
/78/ Control module 12
/79/ Flow meter # 103
/80/ State statistical supervision. Report on atmospheric air protection in 2010
/81/ Report on atmospheric air protection in 3rd quarter 2010
/82/ Photo, cross-checking
/83/ Program of calculation of expenditures on electrical energy
/84/ Statement on acceptance and delivery LE "Coal Mine named after A.F.Zasyadko" amount of generated electrical energy under meters indications kW for December 2010
/85/ АСКУЕ - report on generated electrical energy by modules 1-12 for December 2010
/86/ Form of daily registration of amount of generated electrical energy for December 2010
/87/ REF - report on generated electrical energy by modules 1-12 for December 2010
/88/ Form of registration of cross validation for the period from July till December 2010
/89/ Comparison form of relative difference in indications of generated electrical energy between АСКУЭ and REF
/90/ Registration form of heat generation by modules 1-12 for December 2010
/91/ Form of automatic accounting (БКТМ) of gas volume for December 2010
/92/ Form of cross validation (Gn5) of gas volume for December 2010
/93/ Comparison form of relative difference in indications of gas volume accounting between БКТМ and Gn5
/94/ Job description of dispatcher SU ''Cogeneration electric power station'' of 01.08.2010
/95/ Job description of lead dispatcher SU 'Cogeneration electric power station'' of 01.08.2010
/96/ Accreditation Certificate #006 issued to FDE "Tyumen Centre of Standardization, Metrology and Certification", valid till December 31, 2013
/97/ Attachment to Accreditation Certificate #006 dated December 17, 2008
/98/ Authorization Certificate #PK 009-2009 issued to SE "Ivano-Frankivskstandartmetrologiya" on July 6, 2009, valid till July 6, 2014

/99/ CO2 emission reduction calculation achieved in 2010 (excel spreadsheet)

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 General Director, LE Coal Mine named after A.F. Zasyadko
/2/ Yevgeniy Berezovskiy – SU CHP Director
/3/ Valeriy Cherednikov – Monitoring Engineer, Gas Treatment Lead Engineer
/4/ Maksim Mynka – SU CHP Chief Dispatcher
/5/ Vadim Nosach – SU CHP Chief Engineer
/6/ Igor Shtugorenko – AGFCP Machinist
/7/ Tatyana Moiseyeva – AGFCP Operator
/8/ Vasiliy Natarin – AGFCP Chief
/9/ Aleksey Kostenko – Foreman
/10/ Sergiy Makeyev – Boiler House Foreman
/11/ Vladimir Reznichenko – Electrical Workshop Senior Mechanic
/12/ Elena Kopylova – Lead Engineer, Environment Protection
/13/ Svetlana Lyubarets – Director, LLC "Carbon Emission 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. LE Coal Mine named after A.F. Zasyadko is a specific legal entity authorized by the designated focal points of the Parties involved to participate in the JI project.	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?	At the time of previous and current monitoring periods the delay in the installation of some project units as to the determined PDD was noted. Within the monitoring period, following project parts have not been introduced: Power: Yakovlevskaya SU CHP is not in operation at this moment. At this SU CHP, power generation is not running; as a result, GENCHP includes only net power generated by Vostochnaya SU CHP;		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Heat: during this monitoring period, infrastructure for heat supply of four sites of Mine and municipal heat supply grid are absent, save heat supply from Vostochnaya SU CHP to Vostochnaya site. In view of this, at this monitoring period, monitoring of following variable data was not performed: HEATdeliv,DH,y; HEATdeliv,yak,y; HEATdeliv,centr,y. General amount of heat supplied is equal to amount of heat supplied from Vostochnaya SU CHP (HEATdeliv,vost,y); Coal Mine Methane(CMM), utilized at SU CHP: As Yakovlevskaya SU CHP was not in operation during this monitoring period, CMM was not utilized at this SU CHP. Therefore, MMCHP,y included only CMM, utilized by Vostochnaya SU CHP; Coal Mine Methane(CMM) utilized at AGFCP. From four planned fuel stations (one - at Vostochnaya site, one- at Centralnaya site, and two-on Yakovlevskaya site), during this monitoring period, block gas filling station at Vostochnaya site has been operating. Therefore for MMGAS,y monitoring, only gas supply to these gas fueling station was used. It was seen on site and can be confirmed by the verification team that the implementation of the missing parts of the project is going on. Thus, for instance, construction of the premises and installation of project equipment for the CHP units at Yakovlevskaya site was being implemented at the time of current verification. The 1st and the 6th SU CHP units are planned to be put into operation in two phases (in December 2011 and March 2012 respectively)		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 01. Please, explain why the name for CHP has been changed to SU CHP	CL 01	OK
		CL 02. Please, provide documents that state the change of CHP legal status	CL 02	OK
		CAR 02. The status of the project activities implementation in the MR #9 differs from that defined in the PDD version 4.4. Please, bring in conformity these data.	CAR 02	OK
		CL 03. Please, explain which document the paragraphs provided in brackets in sections A.8., B.2.3.-B.2.6. are referred to	CL 03	OK
		CL 04. Please, correct BKT.M-1 serial number in table "Meters/sensors of fuel gas metering system BKT.M-1"	CL 04	OK
93	What is the status of operation of the project during the monitoring period?	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)	OK	OK
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?	There are no deviations in the monitoring plan compared to the final monitoring plan dd. 27 March 2008 as described in the PDD version 4.4. Some metering devices have been substituted, and additions have been made to provide safety of parameters monitored. Parameters to be monitored as	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		well as formulas for performing calculation have not been changed. Starting from January 1, 2008, primary and secondary metering devices/ meters have been added/ substituted, because SU CHP unit measuring system was updated and improved. In addition, new metering device blocks for high concentration flow metering measurement have been installed: • Universal 1 metering system for ignition gas at SU CHP unit instead of Gn6 with their sensors; • Universal 2 metering system for fuel gas at AGFCP, additionally to gas fuelling stations equipment; • BKT.M metering system for fuel gas in machine rooms, instead of Keuter device, ADM Electronic at gas treatment facility. The detailed description of layout and work of metering equipment is provided in Section B of the current MR.		
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 in 23 (b) (i)-(vii) above, influencing the baseline emissions as well as risks associated with the project were taken into account, as appropriate. For more detailed information, please, refer to Section B.2. of the determined PDD version 4.4., as well as Section 3.3. of the present Verification Report.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of	Data sources used for calculating emission reductions are clearly identified, reliable and transparent.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	net removals 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 3.3. of the present Verification Report.		
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.	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?	**CL 10**. Please, provide calculation of the total emission reductions achieved in 2010	CL 10	OK
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/A	N/A	N/A
Applicable to bundled JI SSC projects only				
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	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	basis of an overall monitoring plan, have the project participants submitted a common monitoring report?			
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?	N/A	N/A	N/A
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	N/A	N/A
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 monitoring plan, including the quality control and quality assurance procedures. It's exhaustive description is provided in EMISSION MONITORING MANUAL for Mine named after A.F. Zasyadko, valid		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		from 01/08/201, that has been presented to the verifiers during the on-site visit. **CAR 01.** MR # 9 does not comprise information on the events that could influence the monitoring of parameters as opposed to that such events are registered in the monitoring logbooks. **CAR 03.** There is inconformity in abbreviations standing for the coal mine methane in the MR and excel spreadsheet. Please, make appropriate corrections.	CAR 01 CAR 03	OK OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	**CL 05.** Please, provide Accreditation certificates for Ivano-Frankovsk Scientific and Production Centre for Standardization, Metrology and Certification, Tyumen Centre for Standardization, Metrology and Certification **CL 06.** Please, provide passports or other documents describing the JMS 620 modules technical characteristics	CL 05 CL 06	OK OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	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 Mine named after A.F. Zasyadko, valid from 01/08/201, and implemented that was seen on site and can be confirmed by the verification team. **CL 07.** Please, provide the original documents for the	CL 07	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		gas sample analyses made for the 3rd and 4th quarters of the year 2010 **CL 08.** Please, correct dates on which gas samples analyses were taken in the 3rd quarter. **CL 09**. Please, provide certificates confirming the amount of methane at AGFCPs for the reporting period.	CL 08 CL 09	OK OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	**FAR 01.** Relative error margins for data monitored should be defined in Cross checking section of the Emission Monitoring Manual	FAR 01	FAR01 remains open until next periodic verification.
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				

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

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

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CAR 01. MR # 9 does not comprise information on the events that could influence the monitoring of parameters as opposed to that such events are registered in the monitoring logbooks.	101(a)	In Monitoring Report # 9 version 2.0. in B4 Section information has been out about events entered in the record log and which could have impact on the parameter recording: On 01.08.2010, substitution of BKT.M # 245 for BKT.M# 5668 was performed, because it has been sent for state calibration to Tyumen Centre for Standardization, Metrology and Certification. On 21.08.2010, substitution of BKT.M # 5668 for BKT.M # 094 was performed, because of failure of 485 interface. BKT.M # 5668 has been sent to manufacturer for repair.	CAR 01 is closed based on the information provided and amended to the MR.
FAR 01. Relative error margins for data monitored should be defined in Cross checking section of the Emission Monitoring Manual	101(d)		FAR 01 remains open until next periodic verification.

CL 01. Please, explain why the name for CHP has been changed to SU CHP	92	Name for CHP has been changed to SU CHP because LE Mine named after A.F.Zasyadko Leasholder Organization Council decided to re-organize the company and establish Structural Unit CHP at LE Mine named after A.F.Zasyadko Lease holder (Minutes # 12 dd. December 25, 2009)	CL 01 is closed based on the documents provided to the verification team.
CL 02. Please, provide documents that state the change of CHP legal status	92	Re-organization of LE Mine named after A.F.Zasyadko did not changed legal status of CHP. Structural Unit CHP is separated unit without status of legal entity which is established and is reported to Structural Unit CHP. Documents are provided for verification.	CL 02 is closed based on the documents provided to the verification team.
CAR 02. The status of the project activities implementation in the MR #9 differs from that defined in the PDD version 4.4. Please, bring in conformity these data.	92	In Monitoring Report # 9 vers. 2.0., corrections have been put regarding implementation of the activity under project subject to PDD version 4.4. Also, stated are new terms of project implementation and reason which caused deviation from implementation schedule.	Due corrections have been made to the MR. CAR 02 is closed.
CL 03. Please, explain which document the paragraphs provided in brackets in sections A.8., B.2.3.-B.2.6. are referred to	92	These paragraphs refer to Decision 17/CP.7 (Annex H). Corrections are put into Monitoring Report # 9 vers. 2.0.	CL 03 is closed based on due corrections made to the MR.

CL 04. Please, correct BKT.M-1 serial number in table "Meters/sensors of fuel gas metering system BKT.M-1"	92	BKT.M serial number is corrected. Changes are out into Monitoring Report # 9 vers. 2.0., page 24.	CL 04 is closed based on corrections made to the MR.
CL 05. Please, provide Accreditation certificates for Ivano-Frankovsk Scientific and Production Centre for Standardization, Metrology and Certification, Tyumen Centre for Standardization, Metrology and Certification	101(b)	Documents confirming entitlement for adjustment (calibration) of measuring devices are provided to verification team.	Requested documents have been provided for verification. CL 05 is closed.
CL 06. Please, provide passports or other documents describing the JMS 620 modules technical characteristics	101(b)	Documents describing technical specifications of JMS 620 units are provided for verification.	Requested documents have been provided for verification. CL 06 is closed.
CAR 03. There is inconformity in abbreviations standing for the coal mine methane in the MR and excel spreadsheet. Please, make appropriate corrections.	101(a)	Corrections regarding reductions on coal mine methane in Monitoring Report and CO_2 calculation forms are put. CO_2 calculations forms with corrections are provided to verification team.	Corrections regarding reductions on coal mine methane in Monitoring Report and CO_2 calculation forms have been made. CAR 03 is closed.
CL 07. Please, provide the original documents for the gas sample analyses made for the 3rd and 4th quarters of the year 2010	101(c)	Documents for gas sample analyses for Q3 and Q4 2010 are provided for verification.	CL 07 is closed based on the documents provided to the verification team.

CL 08. Please, correct dates on which gas samples analyses were taken in the 3rd quarter.	101(c)	Documents for gas sample analyses for Q3 are corrected. Changes are put into Monitoring Report # 9 vers. 2.0., pages 39 and 40.	CL 08 is closed based on the corrections made to the documents.
CL 09. Please, provide certificates confirming the amount of methane at AGFCPs for the reporting period.	101(a)	Certificates confirming the amount of methane at AGFCPs for the reporting period are provided to verification team.	CL 09 is closed based on the documents provided.
CL 10. Please, provide calculation of the total emission reductions achieved in 2010	95(d)	Calculation of the total emission reductions achieved in 2010 is included in CO_2 annual calculation, and provided to verification team.	CL 10 is closed based on the calculations provided.

Date of issue: 25 January, 2011

APPENDIX B: VERIFIERS CVS

The verification team consists of the following personnel:

Ivan G. Sokolov, Dr. Sci. (biology, microbiology)

Team Leader, Climate Change Lead Verifier
Bureau Veritas Certification Local Climate Change Product Manager for Ukraine

He has over 25 years of experience in Research Institute in the field of biochemistry, biotechnology, and microbiology. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered), Quality Management System (IRCA registered), Occupational Health and Safety Management System, and Food Safety Management System. He performed over 140 audits since 1999. Also he is Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and Lead Tutor of the IRCA registered ISO 9000 QMS Lead Auditor Training Course. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 50 JI projects.

Igor Antipko (Mining Electro-Mechanics)
Team member, Bureau Veritas Ukraine Technical Specialist, Climate Change Verifier

Graduated from Stahanov College of Mines, specialist in Mining Electro-Mechanics (Automation processes of production of minerals, development of the circuits of electrosupply of mines, management of chisel and explosive works in mines). Completed full course of the Labour protection and Safety, was employed at the position of the Mine mechanic on repair of the equipment, Mine underground electromechanic (service and repair of mechanisms and equipment, lines of transportation of the electric power in mine of extraction stone coal, service and repair of gas analyzer of methane, monitoring and repair mine of air control devices).

The verification report was reviewed by:

Leonid Yaskin, PhD (thermal engineering)
Internal Technical Reviewer
Bureau Veritas Certification Rus General Director, Climate Change Local Manager, Lead Auditor, IRCA Lead Tutor, Climate change Lead Verifier

He has over 30 years of experience in heat and power R&D, engineering, and management, environmental science and investment analysis of projects. He worked in Krzhizhanovsky Power Engineering Institute, All-Russian Teploelectroproject Institute, JSC Energoperspectiva. He worked for 8 years on behalf of European Commission as a monitor of Technical Assistance Projects. He is a Lead auditor of Bureau Veritas Certification for Quality Management Systems (IRCA registered), Environmental Management System (IRCA registered), Occupational Health and Safety Management System (IRCA registered). He performed over 250 audits since 2002. Also he is a Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and a Lead Tutor of the IRCA registered OHSAS 18001 Lead Auditor Training Course. He is an Assuror of Social Reports. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and was/is involved in the determination of over 50 JI projects.