VERIFICATION REPORT VEMA S.A.

Verification of the

REDUCTION OF METHANE EMISSIONS AT FLANGED, THREADED JOINTS AND SHUT-DOWN DEVICES OF OJSC "KYIVGAS GAS" EQUIPMENT»

FOURTH PERIODIC FOR THE PERIOD OF 01.10.2010-30.04.2011

REPORT NO. UKRAINE-VER/0277/2011

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE/0277/2011

VERIFICATION REPORT

Date of first issue:	Organizational unit:
07.05.2011	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
VEMA S.A.	Fabian Knodel

Summary:

Bureau Veritas Certification has made the 4th periodic for the period of 01.10.2010-30.04.2011 verification of the "Reduction of Methane Emissions at Flanged, Threaded Joints and Shut-down Devices of OJSC "Kyivgas" Equipment" implemented in Kyiv city, Ukraine, and applying the JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

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

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

In summary, Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is ready to generate GHG emission reductions. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 652514 tons of CO2eq for the monitoring period of 01.10.2010-30.04.2011 (01.10.2010 to 31.12.2010 - 283166 tons of CO2eq, 01.01.2011 to 30.04.2011 – 369348 tons of CO2eq).

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.:	Subject Group:
UKRAINE-ver/0277/2011	JI

Project title:
"Reduction of Methane Emissions at Flanged, Threaded Joints and Shut-down Devices of OJSC "Kyivgas" Equipment "

Work carried out by:
Team Leader, Lead verifier: Oleg Skoblyk
Team Member, verifier: Kateryna Zinevych

Work reviewed by:
Ivan Sokolov - Internal Technical Reviewer

Work approved by:
Flavio Gomes – Operational Manager

Date of this revision:	Rev. No.:	Number of pages:
10/05/2011	02	27

Bureau Veritas Certification Holding SAS

Abbreviations

AIE	Accredited Independent Entity
BVCH	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CGDP	Cabinet Gas-Distribution Posts
CL	Clarification Request
CO_2	Carbon Dioxide
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Green House Gas(es)
GDP	Gas-Distribution Posts
IETA	International Emissions Trading Association
JI	Joint Implementation
JISC	JI Supervisory Committee
MoV	Means of Verification
MP	Monitoring Plan
OJSC	Open Joint Stock Company
PCF	Prototype Carbon Fund
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

VEMA S.A. has commissioned Bureau Veritas Certification Holding SAS to verify the emissions reductions of its JI project "Reduction of Methane Emissions at Flanged, Threaded Joints and Shut-down Devices of OJSC “Kyivgas” Equipment" in Kyiv city, Ukraine.

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

1.1 Objective

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

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

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

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, the project’s baseline study 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:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Kateryna Zinevych

Bureau Veritas Certification Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical 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 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

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

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

2.1 Review of Documents

The Monitoring Report (MR) version 1 dated 05.05.2011 submitted by Vema S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology (if applicable) and/or 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.

After the procedure of Internal Technical Review PP had to correct MR and issued new version 02 as of 07/05/2011.

The verification findings presented in this report relate to the project as described in the PDD version 03 and Project Monitoring Report version 02.

2.2 Follow-up Interviews

On 15/02/2011 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of PJSC Kyivgas and Vema S.A. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC Kyivgas	Organizational structure. Responsibilities and authorities. Training of personnel. Quality management procedures and technology. Implementation of equipment (records). Metering equipment control. Metering record keeping system, database. Social impacts. Environmental impacts.
Consultant: Vema S.A.	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 5 Corrective Action Requests and 1 Clarification Request.

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 approval by Ukraine and Switzerland has been issued by the NFP of that Party when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest. (see Reference)

The abovementioned written approval is unconditional.

3.2 Project implementation (92-93)

PJSC “Kyivgas” is the company providing natural gas transportation and supply to industrial and domestic consumers as well as to population in the city of Kyiv.

The structure of current gas transport rates regulated by the government does not include depreciation and investment needs of gas distribution enterprises, which does not ensure receipt of funds for performance of necessary repair works and modernization of gas networks, purchase of appropriate engineering equipment and components, and also results in increase of natural gas leakage at the objects of PJSC "Kyivgas".

Application of JI project mechanisms provided by Kyoto Protocol was planned before the beginning of implementation of this project.
Project activities include reduction of methane leakage which is the result of faulty sealing of ground and underground fittings implemented at the switch mechanisms (bolts, cocks, valves), flange and threaded joints of gas pipelines of PJSC "Kyivgas" in the amount of 60 613pieces.
Types and quantity of fittings are given in the Table 1:

No.	Type of devices (type of joint)	Quantity of devices, pcs.
1.	Shut-down devices in gas wells– block valves (flanged joint)	6447
2.	Ground shut-down devices – block valves (flanged joint)	10451
3.	Electrical insulating flanges (flanged joint)	22120
4.	Underground shut-down devices of well-less plant - block valves (flanged joint)	3739
5.	Ground shut-down devices - cocks (threaded joint)	17856
In total		**60613**

Table 1. Quantity of fittings by type involved in the Project

Within the scope of the project for repair of equipment, for the purpose of methane leakage elimination, modern compacting materials will be used, replacing service and repair practice based on rubberized asbestos fabric and rubber gaskets, and compacting padding made of cotton fibre with fat soakage and asbestos graphite filler. This practice does not give long-term effect, which leads to additional methane leakage. In addition to reduction of methane leakage, the project activity will lead to reduction of technical leaks of natural gas (and thus, to reduction of financial costs), and will contribute to improvement of environmental situation, to reduction of the risk of accidents, especially for in-house gas pressure regulators and overland gas pipelines.
The project activity includes:

- Implementation of purposeful examination and technical maintenance (PETM) of all switch mechanisms (bolts, cocks, valves), flange and threaded joints – modern and the most economically effective practice, which allows not only detection of leaking areas, but also determination of leakage volume (i.e., potential volume of gas leakage reduction). This key information is required for substantiation of efficiency of repair works and priority choice of its objects, which is important under short financing for elimination of all leakages. This activity will include purchase and calibration of modern measuring equipment, appropriate training of employees, development of monitoring map for each switch

mechanism, flange and threaded joint of gas distribution network, with the list of all equipment components to be regularly examined, creation of leakage data collection and storage system, and implementation of internal audit and quality system for elimination and accounting of methane leakage.

- Detection and measurement of leakage: Monitoring system of leaks at all switch mechanisms (bolts, cocks, valves), flange and threaded joints, including eliminated leaks (repaired components of equipment). Monitoring will be done on a regular basis (once in four days or once per week – depending on the type of equipment) by specially trained staff. Each component will be checked according to the monitoring map, and detected leakage will be duly marked with individual number; gas leakage volumes will be measured and registered in the database.
- Elimination of all detected leakages: repairs of leaking equipment under this project will vary from replacement of gaskets and wedge valves, use of new compactors or sealing materials, to capital repairs and replacement of the equipment. Repaired equipment components will be regularly checked as a part of a standard monitoring program (see above) to make sure they have not become the source of leakage again.

Project activities include reduction of methane leakage which is the result of faulty sealing of ground and underground fittings implemented at the switch mechanisms (bolts, cocks, valves), flange and threaded joints of gas pipelines of PJSC “Kyivgas” in the amount of 60 613 pieces. Types and quantity of fittings are given in the PDD version 3.

During 2005 – 2010 years each of 60 613 switch mechanisms (bolts, cocks, valves), flange and threaded joints of gas pipelines of PJSC “Kyivgas” were reconstructed or repaired.

The tasks of current monitoring period (October 2010 – April 2011) is further accomplishment of purposeful examination and technical maintenance (PETM) of all switch mechanisms (bolts, cocks, valves), flange and threaded joints. Repaired since 2005 to 2009 years equipment components during current monitoring period regularly checked as a part of a standard monitoring program to make sure they have not become the source of leakage again.

According to Monitoring Plan in PDD version 3 the regular repairs of the components are done once per year, technical maintenance – once per half year.

Methane leakage volumes received in the result of measurements on the repairing equipment of the gas pipeline of PJSC “Kyivgas” are not exceeding the methane leakage volumes, which was measured after the first repair of equipment.

The implementation status of the project is fully operational during the whole monitoring period, which is 01/10/2010 - 30/04/2011.

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 regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

For calculating the emission reductions or enhancements of net removals, key factors, 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 were taken into account, as appropriate.

Data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions or enhancements of net removals 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)

Control and monitoring system consists of three parts:
1) Measurements of methane leakage value before the rehabilitation (hermetization) of the object;
2) Measurements of methane leakage value after the rehabilitation (hermetization) of the object;
3) Archiving and processing of obtained results.

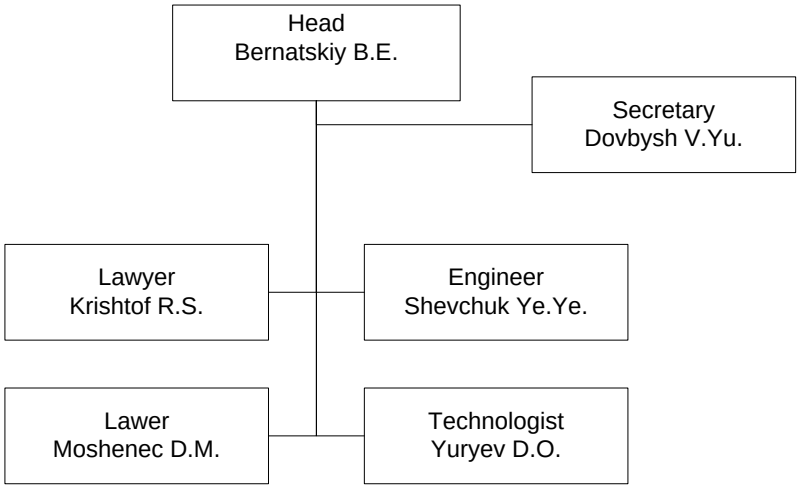
To measure leakage volume of natural gas it was decided to use the method based on the Calibrated Bag Technology described in the approved baseline strategy AM0023 “Reduction of natural gas leakage at compressor and gas distribution stations of main gas lines”. One of the problems incurred by using this method is difficult accounting of the volume of the valves measurements are done on, and of the initial air volume upon determination of gas volume received in the bag.

In order to ensure successful implementation of a project and the credibility and verifiability of the emissions reductions achieved, the project must have a well-defined management and operational system.

According to distribution of duties between the parties of the project the organization of monitoring measurements of leaks of methane on flanged, threaded joints and shut-down devices of the PJSC "Kiyvgas" equipment is incurred by company VEMA S.A. With that end in view company VEMA S.A. concludes corresponding contracts with other companies on carrying out of such monitoring measurements. Thus, direct monitoring measurements are spent by the personnel of these companies, but at presence and at control of representatives of PJSC "Kiyvgas" and company VEMA S.A. At carrying out of monitoring measurements the parties of the project co-ordinate the activity through working group specially created in at PJSC "Kiyvgas". Data of monitoring measurements of leaks is fixed and in the electronic form transfer to participants of the project for their further processing, carrying out of calculations and storage.

Operational team

Coordination of work of all departments and services of PJSC “Kyivgas” concerning project implementation is done by specially created Working team. Renewed structure of Working team is approved by the order № 179 акщь 04.05.2011 of the Chairman of the Board of PJSC “Kyivgas” Gorovoy S.A. The structure of Working team is shown on the Picture 1.



Pic. 1. Structure of Working team.

Head of working team Bernatskiy B.E. is responsible for general management of the project and coordination of all actions of the parties,

determines plan of measures under the Project and scope of resources required. Yuryev D.O. coordinates collection of all information provided for by monitoring plan, and makes all necessary calculations. Archiving of all received information in the result of measurements and settlements is done under guidance of Dovbysh V.Yu. Technical maintenance of the Project is carried out by Shevchuk Ye.Ye. Legal support of the Project is carried out by Krishtof P.S. and Moshenec D.M.
Operating repair (once a year) and maintenance service (once a half year) flanged, threaded joints and shut-down devices, according to distribution of duties between the project parties, carries out by PJSC "Kiyvgas".

Environmental impact

No environmental and social indicators are defined in the monitoring plan. The auditor team on site met a sample of local stakeholders. They expressed their deep appreciations for the project. As the project has brought sustainable development in to Kyiv city by means of implementation of activities for natural gas leaks reduction as well as improving of living comfort for population through improving of gas supply quality and safety, it will also have positive environmental impact.

3.6 Verification regarding programs of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 4th periodic for the period of 01/10/2010 - 30/04/2011 verification of the " Reduction of Methane Emissions at Flanged, Threaded Joints and Shut-down Devices of OJSC “Kyivgas” Equipment” Equipment” located in Kyiv, Ukraine, which applies the JI Specific Approach. 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 Vema S.A. 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 03. 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 02 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 calculated without material 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 the following statement:

Reporting period: From 01/10/2010 to 30/04/2011

Baseline emissions	: 693 569	t CO_2 equivalents.
Project emissions	: 41 055	t CO_2 equivalents.
Emission Reductions	: 652 514	t CO_2 equivalents.

Emission Reductions (01.10.2010-31.12.2010): 283 166 t CO_2 equivalents.
Emission Reductions (01.01.2011-30.04.2011): 369 348 t CO_2 equivalents.

5 REFERENCES

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

/1/ PDD, version 03, as of July 7, 2010

/2/ Monitoring Report, version 01, dated 05.05.2011

/3/ Monitoring Report, version 02, dated 07.05.2011

/4/ Determination Report of Bureau Veritas Certification Holding SAS dated 08.07.2010

/5/ Verification Report on early credits of Bureau Veritas Certification Holding SAS dated 03.08.2010

/6/ Verification Report of Bureau Veritas Certification Holding SAS dated 03.08.2010

/7/ Verification Report of Bureau Veritas Certification Holding SAS dated 03.08.2010

/8/ Letter of Approval, National Environmental Investment Agency of Ukraine, No. 1121/23/7as of 28.07.2010.

/9/ Letter of Approval, Swiss Federal Office for the Environment J294-0463 as of 23.07. 2010

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

/1/. An Order on Working Team creation

/2/. Prevailing investment agreement considering JI project

/3/. Register of shut-down devices, flanged and threaded joints, where the reductions measurement was conducted

/4/. Recommendations for monitoring of methane emission reduction at flanged, threaded joints and shut-down devices of OJSC “Kyivgas” equipment, elaborated by VEMA S.A.

/5/. Acts of state calibration of meters for 2005, 2006, 2007, 2008, 2009:
- Portable gas analyzer EX-TEX® SR5
- Mercury temperature meter of glass type ТЛ4

/6/. Photos of measurement taken at the shut-down device – wedge-gate valve at the address: Kyiv, Nemanska Str., 4, reg. No. 8297, code: 02-0191-03

/7/. Photos of measurement taken at the flanged joint at the address: Kyiv, Lyubomyrska Str., 15, reg. No. 27847, code: 03-0633-25

/8/. Photos of measurement taken at the flanged valve at the address: Kyiv, Mashynobudivelnykiv Str., 5, reg. No. 28658, code: 03-0676-05

/9/. Photos of measurement taken at the flanged valve at the address: Kyiv, Mashynobudivelnykiv Str., 8, code: 03-0676-14

/10/. Photo of portable gas analyzer EX-TEX® SR5

/11/. Passport of portable gas analyzer EX-TEX® SR5
/12/. Passport of mercury temperature meter of glass type ТЛ4
/13/. Passport of manometer Д-59Н-100-1.0 6 kPa
/14/. Passport of timer «СОС пр-2б-2»
/15/. Order on providing changes to the working group for implementation of the projects aimed at green house gases amount reduction dated 4th of May 2011, PJSC «Kyivgas»

Persons interviewed:

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

/1/ Bernatskyy B.Ye. – Chief engineer of OJSC “Kyivgas”
/2/ Shevchuk Ye.Ye. – head engineer of the working team
/3/ Dovbysh V.Yu. – secretary of the working team
/4/ Yuryev D.O. – technologist of the working team
/5/ Gladkyi O.M. – head of the working team

VERIFICATION PROTOCOL

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

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
Project approvals by Parties involved					
90	Has the NFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	The project has been approved by both NFPs. The Letters of Approval were presented to the verification team. Letters of Approval by both Parties were submitted to the secretariat on the final determination stage.	N/a	N/a	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	N/a	N/a	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?	Yes, the project has been implemented in accordance with the PDD, which is listed on the UNFCCC JI website. Project activities include reduction of methane leakage which is the result of faulty sealing of ground		Issue is closed.	OK

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		and underground fittings implemented at the switch mechanisms (bolts, cocks, valves), flange and threaded joints of gas pipelines of PJSC "Kyivgas" in the amount of 60 613 pieces. Types and quantity of fittings are given in the PDD version 3. During 2005 – 2009 years each of 60 613 switch mechanisms (bolts, cocks, valves), flange and threaded joints of gas pipelines of PJSC "Kyivgas" were reconstructed or repaired. The tasks of current monitoring period (October 2010 – April 2011) is further accomplishment of purposeful examination and technical maintenance (PETM) of all switch mechanisms (bolts, cocks, valves), flange and threaded joints. Repaired since 2005 to 2009 years equipment components during current monitoring			

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		period regularly checked as a part of a standard monitoring program to make sure they have not become the source of leakage again. According to Monitoring Plan in PDD version 3 the regular repairs of the components are done once per year, technical maintenance – once per half year. CAR 1. Please define whether monitoring period is 01.10.2010-31.03.2011 or 30.03.2011. Clarify and correct. CAR 2. Commenting project activity please indicate specific monitoring period.	CAR 1. Monitoring period is 01.10.2010-30.04.2011. MR is corrected. CAR 2. Corrected in MR version 02.		
93	What is the status of operation of the project during the monitoring period?	Project has been operational for the whole monitoring period, which is 01.10.2010 – 30.04.2011.	N/a	N/a	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?	Yes, the monitoring occured in accordance with the monitoring plan included in the PDD regarding which the determination has been			OK

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		deemed final and is so listed on the UNFCCC JI website. CAR 5. According to determined PDD version 3 ERUs for the monitoring period were supposed to be 654 579 tCO2e but MR version 1 showed ERUs amount as 652514 tCO2e. Clarify the difference.	Difference in the ERUs amount can be explained by the fact that data in PDD is forecasted and in MR actual.	The issue is closed.	
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?	Yes, for calculating the emission reductions or enhancements of net removals, 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 were taken into account, as appropriate.	N/a	N/a	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Yes, data sources used for calculating emission reductions or enhancements of net removals are clearly	N/a	N/a	OK

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		identified, reliable and transparent			
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Yes, emission factors, including default emission factors, that are used for calculating the emission reductions or enhancements of net removals, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.	N/a	N/a	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	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	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	N/a

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
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	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	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	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?	Yes, the implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. CAR 4. Please provide description of the data quality control measures.	Description is provided in the MR version 02.	Issue is closed.	OK

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Yes, the function of the monitoring equipment, including its calibration status is in order.	N/a	N/a	OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Yes, the evidence and records used for the monitoring are maintained in a traceable manner CAR 3. Please provide order № 179 акщь 04.05.2011 of the Chairman of the Board of PJSC "Kyivgas" Gorovoy S.A.	The order was provided to the verification team	Issue is closed.	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	Yes, the data collection and management system for the project is in accordance with the monitoring plan. CL 1. Please check the spelling in the MR version 01.	Spelling was checked and corrected in the MR version 02.	Issue is closed.	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	N/a
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/a	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	N/a

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
104	Does the monitoring period not overlap with previous monitoring periods?	N/a	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	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 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	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	N/a

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	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	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	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	N/a

APPENDIX B: VERIFICATION TEAM

The verification team consists of the following personnel:

Oleg Skoblyk, Specialist (Power Management)

Team Leader, Climate Change Lead Verifier
Bureau Veritas Ukraine HSE Department Project Manager.

Oleg Skoblyk has graduated from National Technical University of Ukraine 'Kyiv Polytechnic University" with specialty Power Management. He has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. Oleg Skoblyk has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 29 JI projects.

Kateryna Zinevych, M.Sci. (environmental science)

Team Member, Climate Change Lead Verifier
Bureau Veritas Ukraine Health, Safety and Environment Department Project Manager

Kateryna Zinevych has graduated from National University of Kyiv-Mohyla Academy with the Master Degree in Environmental Science. She has experience at working in a professional position (analytics) involving the exercise of judgment, problem solving and communication with other professional and managerial personnel as well as customers and other interested parties at analytical centre "Dergzovnishinform" and "Burea

Veritas Ukraine" LLC. She has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. She has successfully completed Climate Change Verifier Training Course and she participated as verifier in the determination/verification of 26 JI projects.

The verification report was reviewed by:

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

Internal Technical Reviewer, Climate Change Lead Verifier, Bureau Veritas Certification Holding SAS Local Climate Change Product Manager for Ukraine

Acting CEO Bureau Veritas 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 is Lead Tutor of the Clean Development Mechanism /Joint Implementation Lead Verifier Training Course and he was involved in the determination/verification over 60 JI/CDM projects.