VERIFICATION REPORT
CEP CARBON EMISSIONS PARTNERS S.A.

VERIFICATION OF THE
REDUCTION OF METHANE EMISSIONS ON THE GAS EQUIPMENT OF GAS DISTRIBUTION POINTS, GAS ARMATURE, FLANGED AND THREADED JOINTS OF GAS DISTRIBUTION NETWORKS OF PJSC "POLTAVAGAZ"

REPORT NO. UKRAINE-VER/0490/2012

REVISION NO. 01

SECOND PERIODIC

FOR THE PERIOD OF 01/01/2008 – 31/03/2012

BUREAU VERITAS CERTIFICATION

Date of first issue: 08/05/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: CEP Carbon Emissions Partners S.A.	Client ref.: Fabian Knodel

Summary:
Bureau Veritas Certification has made the 2nd periodic verification for the period of 01/01/2008-31/03/2012 of the "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagaz" project of CEP Carbon Emissions Partners S.A. located in the territory of Poltava city, towns and villages of Poltava region, Ukraine, and applying 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 (but for the crediting period) refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

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

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

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 accurately and without material errors, omissions, or misstatements, and the ERUs issued totalize 3 980 467 tonnes of CO_2 equivalent for the monitoring period from 01/01/2008 to 31/03/2012.

Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: UKRAINE-ver/0490/2012	Subject Group: JI	
Project title: Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagaz"		
Work carried out by: Kateryna Zinevych – Team Member, Climate Change Lead Verifier Vasyl Kobzar – Team Member, Climate Change Specialist		
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Oleksandr Kuzmenko – Climate Change Specialist		
Work approved by: Ivan Sokolov – Climate Change Operational Manager		
Date of this revision: 08/05/2012	Rev. No.: 01	Number of pages: 29

Bureau Veritas Certification Holding SAS

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1 INTRODUCTION

CEP Carbon Emissions Partners S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC Poltavagaz" (hereafter called in the text the project) in the territory of Poltava city, towns and villages of Poltavskyi, Reshetylivskyi, Velyko-Bohachivskyi, Hlobinskyi, Dykanskyi, Zenkovskyi, Karlivskyi, Kobylyatskyi, Lokhvytskyi, Mashevskyi, Myrhorodskyi, Novo-Sanzharskyi, Chutovskyi districts of Poltava region, Ukraine.

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

The verification covers the period from January 1, 2008, to March 31, 2012.

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, monitoring plan and monitoring report, and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

1.3 Verification Team

The verification team consists of the following personnel:

Kateryna Zinevych

Bureau Veritas Certification Team Member, Climate Change Lead Verifier

Vasyl Kobzar
Bureau Veritas Certification Team Member, Climate Change Specialist

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification Internal Technical Reviewer

Oleksandr Kuzmenko
Bureau Veritas Certification Climate Change Specialist.

2 METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

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

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

2.1 Review of Documents

The Monitoring Report (MR) submitted by CEP Carbon Emissions Partners S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology, Determination Report for the project issued by Bureau Veritas Certification Holding SAS, No. UKRAINE-det/0459/2012 dated 02/03/2012, Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report for the period of 01/01/2008 – 31/03/2012, version 01 dated

03/04/2012 and version 02 dated 20/04/2012, and project as described in the determined PDD.

2.2 Follow-up Interviews

On 23/04/2012 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 "Poltavagaz" and CEP Carbon Emissions Partners 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 "Poltava	ü Organizational structure ü Responsibilities and authorities ü Training of personnel ü Quality management procedures and technologies ü Operation of equipment (logging) ü Metering equipment control ü Record keeping system, database
Consultant: CEP Carbon Emissions Partners S.A.	ü Baseline methodology ü Monitoring plan ü Monitoring report ü Deviations from the PDD

2.3 Resolution of Clarification, Corrective and Forward Action Requests

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

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

(a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;

(b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;

(c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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

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

3 VERIFICATION CONCLUSIONS

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

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

The Clarification, 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 10 Corrective Action Requests, and 2 Clarification Requests.

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

3.1 Remaining issues and FARs from previous verifications

The purpose of this verification is to verify the issues from previous verifications and determination or issues to be verified in the PDD. The Determination Report prepared by Bureau Veritas Certification has determined the following unsolved issues:

CAR 01:

The project has the approval from the government of Switzerland as the investing country, but has no approval from the Host party.

Response

Letter of Approval No. 972/23/7 dated 13/04/2012 was obtained from the State Environmental Investment Agency of Ukraine.

3.2 Project approval by Parties involved (90-91)

The project obtained approval by the Host party (Ukraine) - Letter of Approval No. 972/23/7 issued by the State Environmental Investment Agency of Ukraine dated 13/04/2012, and written project approval by the party – buyer of the emission reduction units (Switzerland) - Letter of

Approval No. J294-0485 issued by the Federal Office for the Environment of Switzerland (FOEN) dated 23/01/2012.
The abovementioned written approvals are unconditional.

The identified areas of concern as to the project approval by the parties involved, project participants' responses and BVC's conclusions are described in Appendix A to this report (refer to CAR 01).

3.3 Project implementation (92-93)

PJSC "Poltavagaz" is an enterprise that supply of natural gas to industrial enterprises (689), public-service facilities (4543), consumers and population (369 879 apartments and individual accommodation units) in the city of Poltava, towns and settlements of Poltava region, Ukraine.

The structure of existing tariffs for gas transportation is regulated by the state and does not take into account the amortization and investment needs of gas distribution enterprises. This leads to a lack of financing for repair works and modernization of gas networks, purchase of proper technological equipment and components, and, as a result, contributes to the increase of natural gas leaks at PJSC

Before the launch of this project, an application of Joint Implementation Mechanism provided for by the Kyoto Protocol was planned.
Project activities consist in the reduction of methane leaks that occur as a result of faulty sealing of gas equipment of GDPs (CGDPs) and gas fittings of PJSC «Poltavagaz» gas distributing pipe During the reporting monitoring period gas equipment of 249 GDPs (CGDPs) and 506 gas fitting units were repaired (replaced). The number of repaired GDPs (CGDPs) and repaired (replaced) gas fittings of gas distribution pipelines under the project is provided in the MR version 02 and Table 2 of this report:

Table 2. Number of repaired GDPs (CGDPs) and repaired (replaced) gas fittings of gas pipelines in periods

Period	Number of repaired GDPs (CGDPs)	Number of repaired (replaced) gas fittings of gas distribution networks
2008	204	373
2009	45	133
2010	-	-
2011	-	-

January 2012 – March 2012	-	-
Total	**249**	**506**

Within the framework of the JI project in order to repair methane leaks at gas equipment and gas fittings three types of repair are applied:

1. Complete replacement of old gas equipment and gas fittings with new units.
2. Repair of components of gas equipment and gas fittings.
3. Replacement of pressure-sealing elements with the use of modern sealing materials, changing the common practice of servicing and repair on the basis of paronite gaskets and sealing stuffing of cotton fibre with fatty impregnation and asbestos-graphite filler.

Project activities included:

- Implementation of Purposeful Examination and Technical Maintenance (PETM) of gas equipment of GDPs (CGDPs) and gas fittings, flanged and threaded joints. This is a modern and the most economically effective practice, which provides possibilities of not only detection of leak points but also determination of leak volume (i.e., potential gas leak reductions). 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 repair of all leaks. This activity included the purchase and calibration of modern metering equipment, appropriate training of employees, monitoring of all gas equipment and fittings as well as flange and threaded joints, creation of leak data collection and storage system, and implementation of internal audit and quality assurance system for repair and accounting of methane leaks;
- Detection and measurement of methane leaks: leak monitoring system at all gas equipment of GDPs (CGDPs), gas fittings (gate valves, faucets, screw valves), flanged and threaded joints, including repaired methane leaks (repaired components of equipment). Monitoring was carried out on a regular basis by specially trained staff. Detected leak points were duly marked with individual numbers; methane leak volumes were measured and registered in the database;
- Repair of all leaks detected: repairs of leaking gas equipment of GDPs (CGDPs) and gas pipeline fittings under this project varied from replacement of sealing elements by using pressure-sealing or new materials to major overhauls and replacement of gas equipment and gas fittings by new modern equipment. The repaired components of GDP (CGDP) gas equipment and gas pipeline fittings are inspected regularly, as a part of standard monitoring activity, to make sure that they did not become the source of leaks again.

Project activities for the current monitoring period (January 01, 2008 – March 31, 2012) also involve subsequent Purposeful Examination and Technical Maintenance (PETM) of all GDP (CGDP) gas equipment and gas fittings repaired (replaced) in the whole JI project life. GDP (CGDP) gas equipment and gas fittings of gas pipelines repaired (replaced) during the previous periods of project activity are inspected on a regular basis as part of standard monitoring programme to ascertain that they did not become leak sources again.

According to the Monitoring Plan provided in the PDD Version 03, current repairs of gas equipment are carried out once a year, and maintenance is performed once per half-year.

Results of measurements of methane leaks at repaired (replaced) GDP (CGDP) equipment and gas fittings of PJSC not exceed the leaks measured after the first repair of equipment.

The project had been in operation for the entire monitoring period – from 01/01/2008 to 31/03/2012.

3.4 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 key factors, such as leak rate for each leak detected, gas temperature and pressure, capacity of leak-proof tank, methane concentration in a sample, time during which methane concentration reaches a certain level, experience in implementing activities provided by the project, current practice that exists in this field in Ukraine, financial costs and background, legislation, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions, such as calibrated metering equipment (gas analyser) are clearly identified, reliable and transparent.

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

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

The monitoring periods per component of the project are clearly specified in the monitoring report and do not overlap with those for which verifications were already deemed final in the past.

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, pro
BVC's conclusions are described in Appendix A to this report (refer to CAR 02-CAR 06).

3.5 Revision of monitoring plan (99-100)

Not applicable.

3.6 Data management (101)

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

The implementation of data collection procedures is in accordance with the monitoring plan provided in the PDD, including the quality control and quality assurance procedures.

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

According to the current Law "On metrolo
metering equipment in Ukraine shall meet the specified requirements of relevant standards and is subject to periodic verification. Calibration of metering equipment is carried out in accordance with the national standards.

The evidence and records used for the monitoring are maintained in a traceable manner.

The data collection and management system for the project is in accordance with the monitoring plan of the PDD and is classified into three stages:

1) Methane leak measurement before the repair (replacement) of gas equipment;
2) Methane leak measurement after before the repair (replacement) of gas equipment;
3) Data archiving and processing.

The measurement of natural gas leaks is made on
bag" technology described in the approv
Version 4.0 «Leak detection and repair
transmission, storage and distribution systems and in refinery facilities
When using this methodology it is difficult to take into account the volume

of fitting where the measurements are carried out and the initial volume of air when determining the gas volume that inlets into the bag.

The problem was solved by manufacturing of a special unit on the basis of a plastic tank of a known volume (0.11 m^3), a package, a plastic hose and a manometer. All joints are leak-proof.

Successful project implementation and reliable and controllable GHG emission reduction require well-organized management structure.

In accordance with the assignment of responsibilities between the parties, CEP Carbon Emissions Partners S.A. undertakes the arrangement of monitoring measurements of methane leaks at flanged, threaded joints and shut-off devices of PJSC "Poltavagaz" equip
CEP Carbon Emissions Partners S.A. enters into relevant agreements with third parties to conduct such monitoring measurements. Thus, direct measurements are made by the personnel of these third parties in the presence and under the supervision of
Carbon Emissions Partners S.A. representatives. When conducting monitoring measurements, the parties coordinate their activities via a working team specially crelatteavdagaatz"PJSTChe"Rdoata and transferred to project participants in electronic form for further processing, calculation and storage.

Coordination of activities of all departments and services of PJSC "Poltavagaz" relating to tattionhesdoJnebytheoject Working Team. New structure of the Working Team is approved according to Order No. 352 of PJSC "Poltaiamvaragfatze" management board as of 10/11/2011. The structure of the Working Team is shown in Figure 1.

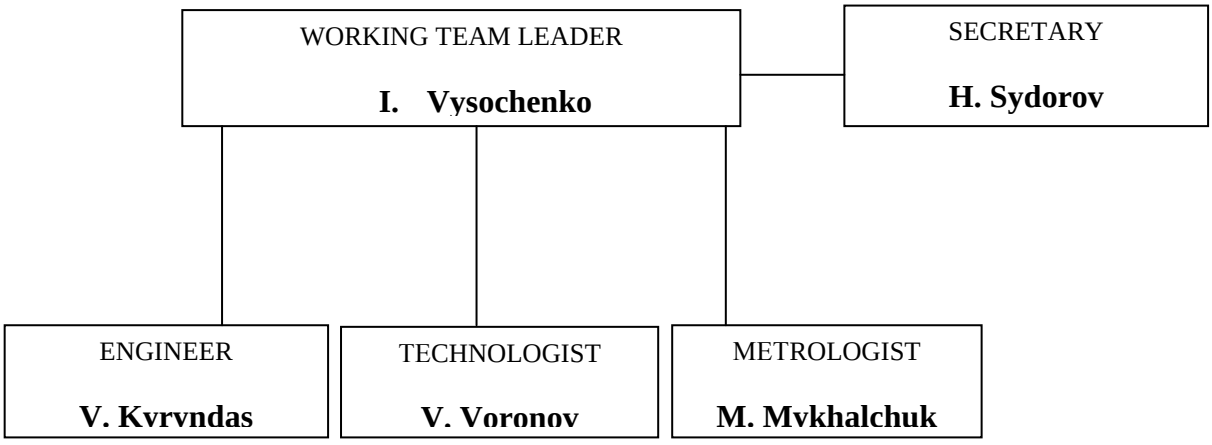

Figure 1 Structure of the Working Team

I. Vysochenko - Working Team Leader shall determine the plan of JI project activities and the amount of resources required;
V. Kyryndas - Working Team Engineer is responsible for organization of monitoring measurements of leaks at GDP (CGDP) and gas distribution network equipment and their repair;
V. Voronov - Working Team Technologist is responsible for collection of all information and conduction of all necessary calculations under the monitoring plan;
H. Sydorov - Working Team Secretary is responsible for storage, archiving and making back-up copy of project information obtained as a result of conducted measurements, calculations as well as processing of documented related to the JI project;
M. Mykhalchuk - Working Team Metrologist shall ensure the availability of calibrated metering devices in the process of JI project implementation.

Current repairs (once per year) and maintenance (once per half-year) of GDP (CGDP) gas equipment and gas fittings of PJSC "Poltavagaz" pipelines are conducted by PJSC "Poltavagaz", in accordance assignment of responsibilities.

All necessary data concerning GHG emission reduction monitoring is archived in paper and/or electronic form and kept till the end of the crediting period and for two years after the latest transaction with emission reduction units.

The Monitoring Report version 02 provides sufficient information on duties assigned, responsibility and authorities concerning implementation and undertaking of monitoring procedures, including data management. The verification team confirms the efficiency of the existing management and operational systems and considers them appropriate for reliable project monitoring.

The identified areas of concern as to data management, project participants' responsibilities and duties are described in CAR 07, CAR 08, CAR 09, CAR 10, CL 01, CL 02).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 2nd periodic verification of the "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas

distribution network within Poltavagaz" Project JI for the period from January 1, 2008 to March 31, 2012, which applies 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 monitoring report against 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 CEP Carbon Emissions Partners 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 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 of 01/01/2008 - 31/03/2012 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.

Emission reduction achieved by the project for the period from 01/01/2008 to 31/03/2012 do not differ significantly from the amount predicted for the same period in the determined PDD.

Table 3 Emission reductions predicted in the determined PDD version 03 and actual emission reductions stated in the MR version 02

Period	Estimated GHG emission reductions stated in the determined PDD, t CO_2e	Actual GHG emission reductions stated in the Monitoring report, t CO_2e
2008	894 263	910 087
2009	925 100	942 860
2010	925 100	947 006
2011	925 100	947 006
01/01/2012 - 31/03/2012	231 275	233 508

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 th

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 01/01/2008 to 31/03/2012

Baseline emissions	: 4 816 411	tonnes of CO_2 equivalent.
Project emissions	: 835 944	tonnes of CO_2 equivalent.
Emission Reductions	: 3 980 467	tonnes of CO_2 equivalent.

5 REFERENCES

Category 1 Documents:

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

/1/	The PDD of the JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagas", version 03, as of 15/02/2012
/2/	Monitoring Report of the JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagas" for the period of 01/01/2008-31/03/2012, version 01, as of 03/04/2012
/3/	Monitoring Report of the JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagas" for the period of 01/01/2008-31/03/2012, version 02, as of 20/04/2012
/4/	Annex Calculation of greenhouse gases emission reductions under the JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution for the period from 01/01/2008 to 31/03/2012
/5/	Determination Report of the JI project "Reduction of methane emissions on the gas equipment of gas distribution points, gas armature, flanged and threaded joints of gas distribution networks of PJSC "Poltavagas", issued by Bureau Veritas Certification Holding SAS, No. UKRAINE-det/0459/2012 dated 02/03/2012
/6/	Letter of Approval No. 972/23/7 issued by the State Environmental Investment Agency of Ukraine as of 13/04/2012
/7/	Letter of Approval No. J294-0485 issued by the Federal Office for the Environment (FOEN) of Switzerland dated 23/01/2012.

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/	Passport of mechanical stopwatch SOSpr-2b-2-010
/2/	Passport of aneroid barometer M 67
/3/	Manual of gas analyzer Variotec-8EX

/4/	Calibration certificate of the working measuring instrument No. 2545/1711 (stopwatch)
/5/	Calibration certificate of the working measuring instrument No. 3744/10 (aneroid barometer)
/6/	Calibration certificate of the working measuring instrument No. 14-00/004 (in-glass mercury thermometer)
/7/	Calibration certificate of the working measuring instrument No. 8419/2 (gas analyzer Variotec-8EX)
/8/	Certificate of state metrological certification No. 08-0118 dated 21/06/2010 (gas analyzer Variotec-8EX)
/9/	Certificate of state metrological certification No. 08-0092 dated 03/06/2010 (gas analyzer Variotec-8EX)
/10/	Photo "CGDP No. 28 at 1 Kopernika Street, Poltava city"
/11/	Photo "Controller «Start» at 1 Kopernika Street, Poltava city"
/12/	Photo "Gas filter FHV at 1 Kopernika Street, Poltava city"
/13/	Photo "CGDP No. 30, 3 Stepovyka lane, Poltava city"
/14/	Photo "CGDP No. 30, filter FHV, crane KZShS41NZh, 3 Stepovyka lane, Poltava city"
/15/	Photo "CGDP No. 30, Controller RDNK - 400m, 3 Stepovyka lane, Poltava city"

Persons interviewed:

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

	Name	Organization	Position
/1/	R. Hrynchak	PJSC "Poltavagaz"	Chairman of the Management Board
/2/	I. Vysochenko	PJSC "Poltavagaz"	Chief Engineer, Working Team Leader
/3/	H. Sydorov	PJSC "Poltа	Head of VTV, Working Team Secretary
/4/	V. Voronov	PJSC "Polt	Lead Engineer, Working Team Technologist
/5/	V. Kyryndas	PJSC "Polt	Head of SEPHP and HRP, Working Team Engineer
/6/	E. Belov	"CEP" LL(	Consultant of CEP Carbon Emissions Partners S.A.

APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

JI PROJECT VERIFICATION PROTOCOL

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 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 parties. The Letters of Approval were presented to the verification team. **CAR 01.** Please specify the number of the Letter of Approval from Ukraine in accordance with the document format.	**CAR 01**	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
Project implementation				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	Yes, the project has been implemented in accordance with the PDD, which is listed on the UNFCCC JI website. Project activities consist in reduction of methane leaks which are the result of faulty sealing of GDP (CGDP) gas equipment and gas fit pipelines. During the reporting monitoring period, equipment of 249 GDPs (CGDPs) and 506 units of gas fittings were repaired (replaced) in the framework of the project. Types of fittings and their number is listed in the PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		version 03 and the MR version 02. Project activities for the current monitoring period (January 01, 2008 – March 31, 2012) also involve subsequent Purposeful Examination and Technical Maintenance (PETM) of all GDP (CGDP) gas equipment and gas fittings repaired (replaced) in the whole JI project life. GDP (CGDP) gas equipment and gas fittings of gas pipelines repaired (replaced) during the previous periods of project activity are inspected on a regular basis as part of standard monitoring programme to ascertain that they do not become leak sources again. According to the Monitoring Plan provided in the PDD Version 03, current repairs of gas equipment are carried out once a year, and maintenance is performed once per half-year. Results of measurements of methane leaks at repaired (replaced) GDP (CGDP) equipment and gas fitti n g s o f P J S C " P o l t a v a g a exceed the leaks measured after the first repair of equipment. The estimated calculated GHG emission reductions specified in the determined PDD Version 03 differ from actual reductions for the current monitoring period by 2%. This can be explained by the fact that the estimations of emission reductions given in the determined PDD Version 03 were preliminary and were based on theoretical calculations, statistical estimates, as well as on the basis of initial		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		measurements performed at facilities of PJSC "Poltavagaz" gas distribution infrastructure before the beginning of the project implementation.		
93	What is the status of operation of the project during the monitoring period?	The Project has been operational for the whole monitoring period, which is 01/01/2008-31/03/2012.	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?	Yes, the monitoring was carried out 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. **CAR 02.** In Section A.4 of the MR, an incorrect monitoring period is stated. Please make the relevant corrections. **CAR 03.** In Section A.5 it is specified that the baseline was set by using a JI specific approach based on methodology AM0023 "Leak production, processing, transmission, storage and distribution systems and in refinery facilities", Version 4.0, approved by the Clean Development Mechanism Executive Board. Please provide references to the methodology in the text of the MR. **CAR 04.** In the MR it is stated that the clarification related to the leak measurement method is provided in the PDD version 02, whereas the latest determined PDD version is version 03. Please make the corresponding corrections.	**CAR 02** **CAR 03** **CAR 04**	OK OK OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key	For calculating the emission reductions key factors, such as leak rate for each leak detected, gas	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	temperature and pressure, capacity of leak-proof tank, methane concentration in a sample, time during which methane concentration reaches a certain level, experience in implementing activities provided by the project, current practice that exists in this field in Ukraine, financial costs and background, legislation, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.		
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 identified, reliable and transparent **CAR 05.** Please specify the baseline, project emissions and emission reductions in tonnes of CO_2 equivalent. **CAR 06.** Table B . 2 provides incorrect data units for Vbag parameter. Please make the relevant corrections.	**CAR 05** **CAR 06**	OK OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	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.	OK	OK
95 (d)	Is the calculation of emission reductions or	The calculation of emission reductions is based on	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	conservative assumptions and the most plausible scenarios in a transparent manner.		
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/a	N/a	N/a
Applicable to bundled JI SSC projects only				
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/a	N/a	N/a
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/a	N/a	N/a
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	those for which verifications were already deemed final in the past?			
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	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?	The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. **CAR 07.** Please provide information on the creation of the Working Team that deals with data quality control procedures at PJSC “Poltavagaz”.	**CAR 07**	OK
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. **CAR 08**. Please, in Section B . 1, provide information on devices that require calibration and are used in the monitoring process. **CAR 09.** Please, in Section B . 1, provide information on the procedure of technical serviceability certification of the device.	**CAR 08** **CAR 09** **CAR 10** **CL 01**	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 10. Please, in Section B . 1, provide information on SE «Kharkivstandardmetrology» specified in the MR as the third party. **CL 01.** Please provide equipment passports for the equipment to be used in the project activity and monitoring.		
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.	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The data collection and management system for the project is in accordance with the monitoring plan. Verification Team confirms the effectiveness of existing management system and operating system and considers them suitable for reliable monitoring of the project. **CL 02.** Please check the numbering of Tables and Figures in the MR.	**CL 02**	OK
Verification regarding programs of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/a	N/a	N/a
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/a	N/a	N/a
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/a	N/a	N/a
104	Does the monitoring period not overlap with	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	previous monitoring periods?			
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/a	N/a	N/a
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI Project. 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 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	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	JPAs being verified; and − The samples selected for prior verifications, if any?			
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	N/a	N/a	N/a
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	N/a	N/a	N/a
109	Is the sampling plan available for submission to the secretariat for 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 CLARIFICATION AND CORRECTIVE ACTION REQUESTS

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CAR 01. Please specify the number of the Letter of Approval from Ukraine in accordance with the document format.	90	The project is approved by the State Environmental Investment Agency of Ukraine (Letter of Approval No. 972/23/7 dated 13/04/2012). The appropriate corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.
CAR 02. In Section A.4 of the MR, an incorrect monitoring period is stated. Please make the relevant corrections.	94	Monitoring period: The starting date is 01/01/2008. The end date is 31/03/2012. The relevant corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.
CAR 03. In Section A.5 it is specified that the baseline was set by using a JI specific approach based on methodology AM0023 "Leak detection and r processing, transmission, storage and distribution systems and in refinery facilities", Version 4.0, approved by the Clean Development Mechanism Executive Board. Please provide references to the methodology in the text of the MR.	94	The relevant references were provided throughout the text of the MR version 02.	The references are verified, the issue is closed.

CAR 04. In the MR it is stated that the clarification related to the leak measurement method is provided in the PDD version 02, whereas the latest determined PDD version is version 03. Please make the corresponding corrections.	94	The clarification related to the leak measurement method is provided in the PDD version 03. The relevant corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.
CAR 05. Please specify the baseline, project emissions and emission reductions in tonnes of CO_2 equivalent.	95 (b)	The relevant corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.
CAR 06. Table B.2 provides incorrect data units for Vbag parameter. Please make the relevant corrections.	95 (b)	Vbag - volume of a leak-proof bag for measurement, m^3. The relevant corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.
CAR 07. Please provide information on the creation of the Working Team that deals with data quality control procedures at PJSC "Poltavagaz".	101 (b)	Coordination of activities of all departments and services of PJSC "Poltavagaz" during the Joint project implementation is done by the Working Team created pursuant to Order No.29/1 of PJSC "Poltavagaz" General Director as of 07/02/2005. The new line-up of the Working Team is approved by Order No. 352 of the Chairman of PJSC "Poltavagaz" Management Board dated 10/11/2011. The relevant information is provided in Section B.2 of the MR version 02.	The issue is closed on the basis of relevant information provided.

CAR 08. Please, in Section B.1, provide information on devices that require calibration and are used in the monitoring process.	101 (b)	The devices used in the monitoring of methane leaks that require calibration include: ¶ Variot-Ex gas analyzer; ¶ D-59N-100-1.0 6 kPa manometer; ¶ TL-4 type thermometer; ¶ SOS pr-2b-2 stop-watch; ¶ BAMM-1 aneroid barometer. The relevant information is provided in the MR version 02.	The issue is closed on the basis of the information provided in the MR version 02.
CAR 09. Please, in Section B.1, provide information on the procedure of technical serviceability certification of the device.	101 (b)	Upon verification (calibration), the certificate of technical serviceability of the device is issued. The relevant information is provided in the MR version 02. The certificates were provided to the verification team.	The issue is closed on the basis of the information provided in the MR version 02.
CAR 10. Please, in Section B.1, provide information on SE «Kharkivstandardmetrology» specified in the MR as the third party.	101 (b)	State Enterprise «Kharkivstandardmetr enterprise performing state verification and calibration of gas analyzers.	The issue is closed on the basis of the information provided.
CL 01. Please provide equipment passports for the equipment to be used in the project activity and monitoring.	101 (b)	Equipment passports are provided to the verification team.	The documents are verified, the issue is closed.
CL 02. Please check the numbering of Tables and Figures in the MR.	101 (d)	The relevant corrections were made in the MR version 02.	The issue is closed on the basis of relevant corrections made.