VERIFICATION REPORT
VEMA S.A.

VERIFICATION OF THE
"METHANE LEAKS REDUCTION AND IMPLEMENTATION OF ENERGY EFFICIENCY MEASURES AT TECHNOLOGICAL EQUIPMENT OF PUBLIC JOINT STOCK COMPANY "NATIONAL JOINT STOCK COMPANY "CHORNOMORNAFTOGAZ"

THE SECOND PERIODIC
FOR THE PERIOD 01/01/2012 – 30/06/2012

REPORT NO. UKRAINE-VER/0614/2012
REVISION NO. 02

BUREAU VERITAS CERTIFICATION

VERIFICATION REPORT

Date of first issue:	Organizational unit:
18/07/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
VEMA S.A.	Fabian Knodel

Summary:

Bureau Veritas Certification has made the first and second periodic verification of the project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz", project of VEMA S.A. located in the Autonomous Republic of Crimea and the Black Sea shelf and the Azov Sea shelf, 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 Independent 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 the project design 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 Request and Corrective Actions Requests (CR and CAR), 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 issued totalize 790 733 tonnes of CO_2 equivalent for the monitoring period 01/01/2012 – 30/06/2012.

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.:	Subject Group:
UKRAINE-ver/0614/2012	JI

Project title:
"Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz"

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Bureau Veritas Certification Holding SAS

Abbreviations

AIE	Accredited Independent Entity
BVC	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO_2	Carbon Dioxide
DVM	Determination and Verification Manual
ERU	Emission Reduxtion Unit
FAR	Forward Action Request
GHG	Green House Gas(es)
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
MP	Monitoring Plan
MR	Monitoring Report
DFP	Designated Focal Point
QA/QC	Quality Assurance/Quality Control
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change

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1 INTRODUCTION

VEMA S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company “National Joint Stock Company “Chornomornaftogaz” (hereafter called “the project”) at the Autonomous Republic of Crimea and the Black Sea shelf and the Sea of Azov shelf, 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 submitted monitoring report and the determined project design document including 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, 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:

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

Olena Manziuk
Bureau Veritas Certification Team Member, Climate Change Verifier

Oleksandr Kuzmenko
Bureau Veritas Certification Team Member, Technical Specialist

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification Internal Technical Reviewer

Vasiliy Kobzar
Bureau Veritas Certification Technical Specialist

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

The Monitoring Report (MR) submitted by VEMA S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), JI specific approach developed in accordance with Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report version 01 dated 18/07/2012, the Monitoring Report version 02 dated 23/07/2012, and project as described in the determined PDD.

2.2 Follow-up Interviews

On 16/07/2012 Bureau Veritas Certification during site visit performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of VEMA S.A. and Public Joint Stock Company "National Joint Stock Company "Chornomornaftogas" were interviewed (see section 5 References). The main topics of the interviews are summarized in Table 1 below.

Table 1 Interview topics

Interviewed organization	Interview topics
Public Joint Stock Company "National Joint Stock Company "Chornomornaftogas"	➢ 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 ➢ Monitoring procedure
VEMA S.A.	➢ Baseline methodology ➢ Monitoring plan ➢ Monitoring report ➢ Deviations from PDD ➢ Emission reduction calculation

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 Request and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in seven Corrective Action Requests and two Clarification Request.

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

3.1 Remaining issues and FARs from previous verifications

There aren't any remaining CLs, CARs and FARs from previous verifications.

One Forward Action Request (i.e., FAR01) from determination is remaining. FAR01 was raised to ensure that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs, and the PJSC "NJSC "Chornomornaftogas" is required to prepare a special documented instruction on monitoring data storage.

Project participants provided a document that states the period of monitoring data storage (Order # 246-пр dated 23/05/2012 of PJSC "NJSC "Chornomornaftogas"). Order is issued by the PJSC "NJSC "Chornomornaftogas" and it is valid from 23/05/2012. Additionally, verification team checked the monitoring procedure realization and the scheme of monitoring data records during site visit and found it satisfactory. Documented evidences of monitoring data are stored in paper and electronic versions. So, FAR01 from determination is closed.

3.2 Project approval by Parties involved (90-91)

Written project approval (LoA # 1271/23/7 dated 17/05/2012) by the host Party (Ukraine) has been issued by the State Environmental Investment Agency of Ukraine.

Moreover, the Federal Office for the Environment (FOEN, Switzerland) has issued the Letter of Approval # J294-0485 dated 14/05/2012 for this project acting as the Designated National Authority of that Party (refer to the section 5 References of this report).

The abovementioned written approvals are unconditional.

The identified areas of concern as to project approval by Parties involved, project participants response and BV Certification's conclusion are described in Appendix A (refer to CAR01).

3.3 Project implementation (92-93)

The JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" main goal is implementing of the program of technical improvement and rehabilitation of the natural gas production, storage, preparation and transportation system, the introduction of advanced technologies for transition to a higher level of transportation, measurement and storage of natural gas.

Project scenario of regarded JI project is based on the measures of new energy efficient equipment implementation, and a list of measures aimed at reducing emissions from natural gas leaks in elements of the gas transportation system. The leaks at technological equipment of PJSC "NJSC "Chornomornaftogaz" are to be significantly reduced due to the JI project measures realization and execution of constant monitoring of potential sources of leaks and prevention of their occurrence.

Project activity is realized according to the schedule of JI project implementation that was stated in the PDD version 02. All details about

installed project equipment for the monitoring period are described in the monitoring report (MR) and in supporting document 1 to the MR.

Project activity is based on repair and replacement of gas fitting and equipment of natural gas extraction, preparation, storage, and distribution systems of PJSC “NJSC “Chornomornaftogaz”. Also, for the monitoring period project activity was aimed in further investigation and maintenance all gas equipment and fitting that were repaired due to the project activity implementation.

Gas equipment repaired in previous years are checked in a regular frequency as anticipated by monitoring plan. This activity is needed for preventative measures to eliminate leaks sources.

According to the monitoring plan approved in the PDD, current repair of gas equipment is carried out once per year and technical maintenance is performed once per six months.

As stated in the monitoring report, GHG emission reductions were achieved due to the JI project activity implementation, and the amount of the emission reductions (ER) for the monitoring period 01/01/2012 – 30/06/2012 is equal 790 733 tonnes CO_2 equivalent that is slightly lower than anticipated by PDD for the same monitoring period.

No revision or deviation from the PDD for regarded monitoring period are occur.

The identified areas of concern as to project implementation, project participants response and BV Certification’s conclusion are described in Appendix A (refer to CAR02 and CL01).

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 version 02 regarding which the determination has been deemed final. According to the PDD, selection of monitoring approach was made in compliance with “Guidance on criteria for baseline setting and monitoring”. The project developer used JI specific approach for establishing the monitoring. The JI specific approach of the JI project was developed based on approved CDM methodology AM0023 “Leak reduction from natural gas pipeline compressor or gate stations” (version 04.0.0). Collection of all key parameters required to calculate greenhouse gas emissions is undertaken in compliance with the established practice of the Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas” to meter methan leaks and environmental impacts.

For calculating the emission reductions key factors, such as global warming potential of CH_4, gas pressure, gas temperature, concentration of methane in the sample, number of operation hours of equipment where leak was detected during the year, uncertainty range for the flow rate measurement method applied to physical leak, etc. as well as risks associated with the JI project were taken into account, as appropriate.

Data sources used for calculating emission reductions, such as calibrated measurement equipment, IPCC, approved methodology, and national standards are clearly identified, reliable and transparent. On site responsible persons register data from the measurement equipments and fixed monitoring data to special reporting form and logbooks. Moreover, there is electronic database. In detail, registration of monitoring parameters at the enterprise is conducted in accordance with identified procedure of data collection. As per situation, JI working group coordinates the project activity and performance of monitoring procedure. Secretary, engineer, technical engineer, and metrologist of PJSC "NJSC "Chornomornaftogas" are reporting to the JI working group. And JI working group transfer monitoring information to the VEMA S.A. representatives for processing and preparation the periodic monitoring reports.

In general, all roles and responsibilities connected with JI project at PJSC "NJSC "Chornomornaftogas" are established in accordance with procedure described in section D "Monitoring plan" of the registered PDD version 02 dated 05/04/2012.

Global Warming potential of CH_4 is selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

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

The identified areas of concern as to compliance of the monitoring plan with the monitoring methodology, project participants response and BV Certification's conclusion are described in Appendix A (refer to CAR03, CAR04, and CAR05).

3.5 Revision of monitoring plan (99-100)

The monitoring plan of JI project that established in the PDD version 02 has no revision or deviation in the monitoring period 01/01/2012-30/06/2012. Thus, this section is not applicable.

3.6 Data management (101)

As a result of site visit, documents revision, and verification process at all there is concluded that 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. For instance, additional internal maintenance and control measures, participation of third parties, and troubleshooting procedures are conducted by the main specialists of PJSC "NJSC "Chornomornaftogas". These procedures are described in detailed in the registered project design document.

According to the documents on measurement equipments and its calibration certificates, the function of the monitoring equipment, including its calibration status, is in order.

During site visit registration forms and logbooks with initial data were revised, and electronic database was checked and discovered as reliable and functional. Thus, the evidence and records used for the monitoring are maintained in a traceable manner.

The data collection and management system for the JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" is in accordance with monitoring plan that is registered in the PDD.

The identified areas of concern as to the data management, project participants response and BV Certification's conclusion are described in Appendix A (refer to CAR06, CAR07, and CL02).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed initial and first periodic verification of the project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" in the Autonomous Republic of Crimea and the Black Sea shelf and the Sea of Azov shelf, Ukraine, which applies the JI specific approach developed in accordance with the Guidance on Criteria for Baseline Setting and Monitoring. The verification was performed on the basis of UNFCCC

criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the monitoring report against project design and 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 Plan as per indicated in the final PDD version 02. 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 01 dated 03/07/2012 and version 02 dated 20/07/2012 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 01/01/2012 to 30/06/2012

Baseline emissions	: 835 233	tonnes CO_2 equivalent
Project emissions	: 44 500	tonnes CO_2 equivalent
Emission Reductions (2008)	: 790 733	tonnes CO_2 equivalent

Total amount of emission reductions for the monitoring period from 01/01/2012 to 30/06/2012 is 790 733 tonnes CO_2 equivalent.

Emission reductions, project emissions and baseline emissions which are stated above are rounded by monitoring report developers to the whole

figure (1t) and are based on calculations which are demonstrated in excel file attached to the monitoring report.

5 REFERENCES

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

/1/	PDD of the JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" version 02 dated 05/04/2012;
/2/	Monitoring reort of JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" for the monitoring period 01/01/2012 – 30/06/2012 version 01 dated 03/07/2012;
/3/	Monitoring report of JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" for the monitoring period 01/01/2012 – 30/06/2012 version 02 dated 20/07/2012;
/4/	Determination Report # UKRAINE-det/0415/2011 dated 06/04/2012 of JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz";
/5/	Letter of Approval # 1271/23/7 dated 17/05/2012 of the JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" issued by the State Environmental Investment Agency of Ukraine;
/6/	Letter of Approval # J294-0485 dated 14/05/2012 of the JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" issued by the Federal Office for the Environment (FOEN) of Switzerland.

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

/1/	Protocol # 13 of the working group meeting of JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company

	"National Joint Stock Company "Chornomornaftogaz" dated 02/07/2012
/2/	Certificate # 059880 of measurement device calibration, ser. # 183 dated 30/06/2011. It is valid to 30/06/2012
/3/	Certificate # 062980 of measurement device calibration, ser. # 42 dated 27/04/2011. It is valid to 27/04/2012
/4/	Certificate # 064117 of measurement device calibration, ser. # 43 dated 15/12/2011. It is valid to 15/12/2012
/5/	Certificate # 065454 of measurement device calibration, ser. # 78 dated 14/03/2012. It is valid to 14/03/2013
/6/	Certificate # 065455 of measurement device calibration, ser. # 23 dated 14/03/2012. It is valid to 14/03/2013
/7/	Certificate # 065453 of measurement device calibration, ser. # 1201 dated 14/03/2012. It is valid to 14/03/2013
/8/	Passport of thermal and chemical gas indicator, ser. # 106. Certificate of acceptance and state calibration dated November 2002
/9/	Passport of measurement device of gas concentration in sampling unit, ser. # 06. Date of state calibration is 24/05/2002
/10/	Registration card of degassing well interferometer type ШИ-11, ser. # 300007
/11/	Registration card of gas indication, ser. # 13646
/12/	Registration card of gas indication, ser. # 1120
/13/	Registration card of gas indication, ser. # 962 dated 20/05/2004
/14/	Report of air protection for the first quarter 2012. Form # 2-TP (the air)
/15/	Report of air protection for the second quarter 2012. Form # 2-TP (the air)
/16/	Permit # 122700000/19 on pollutant emission into the air by stationary sources dated 01/06/2007. It is valid for 5 years, from 01/06/2007 to 01/06/2012 (ejection station of North Bulganatsk gas disposal of NJSC "Chornomornaftogas")
/17/	Permit # 111200000/20 on pollutant emission into the air by stationary sources dated 01/06/2007. It is valid for 5 years, from 01/06/2007 to 01/06/2012 (complex gas preparation unit "Bagerovo" and East Kazantyp gas disposal)
/18/	Permit # 122700000/61 on pollutant emission into the air by stationary sources dated 10/12/2007. It is valid for 5 years, from 10/12/2007 to 31/12/2012 (East Crimea oil production unit of NJSC "Chornomornaftogas")
/19/	Permit # 110100000/106 on pollutant emission into the air by stationary sources dated 25/02/2008. It is valid from 25/02/2008 to 25/02/2013
/20/	Permit # 111900000/77 on pollutant emission into the air by stationary sources dated 18/04/2008. It is valid for 5 years, from 18/04/2008 to 30/06/2013

/21/	Permit # 1101166000/33 on pollutant emission into the air by stationary sources dated 21/04/2008. It is valid for 5 years, from 21/04/2008 to 30/06/2013
/22/	Permit # 125600000/17 on pollutant emission into the air by stationary sources dated 05/05/2008. It is valid for 5 years, from 05/05/2008 to 05/05/2013
/23/	Permit # 110600000/36 on pollutant emission into the air by stationary sources dated 25/06/2008. It is valid for 5 years, from 25/06/2008 to 30/06/2013
/24/	Permit # 110100000/222 on pollutant emission into the air by stationary sources dated 26/12/2008. It is valid for 5 years, from 26/12/2008 to 31/12/2013
/25/	Permit # 125600000/34 on pollutant emission into the air by stationary sources dated 30/12/2008. It is valid for 5 years, from 30/12/2008 to 30/12/2013
/26/	Permit # 125600000/42 on pollutant emission into the air by stationary sources dated 13/04/2010. It is valid for 5 years, from 13/04/2010 to 30/06/2015 (tap unit,Ocheretai bay of NJSC “Chornomornaftogas”)
/27/	Permit # 125600000/43 on pollutant emission into the air by stationary sources dated 13/04/2010. It is valid for 5 years, from 13/04/2010 to 30/06/2015 (complex gas preparation unit Glebovka of NJSC “Chornomornaftogas”)
/28/	Permit # 125600000/44 on pollutant emission into the air by stationary sources dated 13/04/2010. It is valid for 5 years, from 13/04/2010 to 30/06/2015 (management unit of underground gas storage of NJSC “Chornomornaftogas”)
/29/	Order # 246-пр of approval of the period of monitoring documents storage dated 23/05/2012

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/	Rostyslav Ilnytskyi	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	First Deputy Chairman of the Board, Chief Engineer;
/2/	Volodymyr Iershov	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Head of preparation production management
/3/	Oleg Gryn	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Head of production management

/4/	Oleksandr Sigitov	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Chief seviceman
/5/	Kostiantyn Sereda	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Head of production and technical management department
/6/	Ivan Deinega	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Chief metrologist of metrology service
/7/	Leile Kemalova	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Deputy Head of production and technical management department
/8/	Grygorii Gorobets	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Chief engineer of gas production management;
/9/	Vasyl Kuchak	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Chief engineer of underground gas storage management;
/10/	Oleg Ochkan	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Head of production and technical service of pipeline management;
/11/	Volodymyr Rybalkin	Public Joint Stock Company “National Joint Stock Company “Chornomornaftogas”	Deputy head of Marine Stationary Platform 17.
/12/	Palamarchuk Dmitiy	“CEP” LLC	Consultant of VEMA S.A.

APPENDIX A: PROJECT VERIFICATION PROTOCOL

Table 1 Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 02)

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?	All Parties involved in the JI project issued written project approvals. Namely, the State Environmental Investment Agency of Ukraine has issued the Letter of Approval # 1271/23/7 dated 17/05/2012 of the JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz"; and the Federal Office for the Environment (FOEN), Switzerland (Party B), has issued the Letter of Approval for this project No. J294-0485 dated 14/05/2012. **CAR 01.** Please in the monitoring report provide detailed information about LoAs of JI project issued by the Parties involved.	**CAR 01**	OK
91	Are all the written project approvals by Parties involved	All LoAs of regarded JI project are unconditional.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	unconditional?			
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?	As a result of the verification process, the JI project is implemented in accordance with the PDD version 02 which has been deemed final. As a matter of fact, implementation of the energy saving measures is realized mainly according to project schedule. Based on the provided documents and results of the site visit, the JI project is generating emission reductions since 01/01/2012. In the Monitoring Rerort stated that the achieved amount of emission reduction for the monitoring period 01/01/2012 – 30/06/2012 is 790 733 tonnes CO_2 equivalent. On the whole, the JI project activities are conducted according to the Project Design Documents. **CAR 02.** Please indicate in the monitoring report the scope of considered JI project. **CL 01.** Please clarify a reason of difference of emission reductions achieved for the monitoring period 01/01/2012-	**CAR 02** **CL 01**	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		30/06/2012 and stated in the MR and the value of emission reductions estimated in the PDD version 02 for the same period.		
93	What is the status of operation of the project during the monitoring period?	Monitoring report indicated the current status of the project activity implementation. Based on provided materials, there is known that all project equipments were operational in the reporting period and generating emission reductions. Also, refer to section 92 above.	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?	The monitoring procedure at PJSC "NJSC "Chornomornaftogaz" is strictly following the monitoring plan included in the PDD version 02 dated 05/04/2012 regarding which the determination has been deemed final. Data used for calculation of emissions reduction based on information that confirmed by PJSC "NJSC "Chornomornaftogaz" documents.	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii)	According to reviewed information, there are taken into account key factors such as global warming potential of CH_4, gas pressure, gas temperature, concentration	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	of methane in the sample, number of operation hours of equipment where leak was detected during the year, uncertainty range for the flow rate measurement method applied to physical leak, etc. and other risks associated with the implementation of the project activity that can influence to the baseline and project emission, and emission reduction due to the JI project.		
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Data sources used for calculating emission reductions are clearly identified, reliable and transparent. On site responsible persons register data from the measurement equipments and fixed it to special reporting forms and logbooks of PJSC "NJSC "Chornomornaftogaz". Moreover, electronic databases of monitoring data are fulfilled according to the JI project monitoring procedure. All roles and responsibilities are described in the Monitoring report. **CAR 03.** Please provide more information about JI working team of PJSC "NJSC "Chornomornaftogaz". **CAR 04.** Please provide special reporting	**CAR 03**	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		forms with initial monitoring data that are kept during sampling.	**CAR 04**	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?	No CO_2 emission factor is used for emission reduction calculation of JI project "Methane leaks reduction and implementation of energy efficiency measures at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz".	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner as was approved in the PDD. Namely, JI specific approach on the basis of approved methodology AM0023 version 04.0.0. is used regarding monitoring and emission reduction assessment that has been developed in accordance with the Guidance on criteria for baseline setting and monitoring. As a result of documents revision, all data connected with estimation of emission reduction are consistent through the Monitoring report and excel spreadsheets	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		with calculation. **CAR 05**. Please check and correct the formula of project emissions calculation according to registered PDD.	**CAR 05**	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?	Not applicable	Not applicable	Not applicable
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?	Not applicable	Not applicable	Not applicable
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	Not applicable	Not applicable	Not applicable
98	If the monitoring is based on a	Not applicable	Not	Not

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?		applicable	applicable
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?	Not applicable	Not applicable	Not applicable
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?	Not applicable	Not applicable	Not applicable
Data management				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	Procedures of data collection are implemented in compliance with the approved monitoring plan. Measuring equipment, such as gas analysers, gas indicators, etc. is used for monitoring. Monitoring data of the project is monitored in compliance with scheduled frequency approved in the developed monitoring plan and monitoring procedure. The quality control and quality assurance procedures realised due to performing of additional internal maintenance and checking measures, participation of third parties, and carrying out of troubleshooting procedures.	OK	OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	All project equipments were operating within the considered monitoring period. As a fact, the monitoring equipment has calibration. It is calibrated with periodic frequency (passport states the calibration frequency for every device) according to the national regulations. During site visit verification team received and reviewed passports and certificates on calibration of all measurement equipment that confirm the fact stated above.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Detailed information about the equipment accuracy, calibration dates of the measurement devices, etc. is stated in the supporting document 2 to the Monitoring Report for the monitoring period 01/01/2012-30/06/2012.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Monitoring records are used for the emissions calculation and emission reductions estimation maintained in a traceable and transparent 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 approved monitoring plan. Implementation of monitoring system was checked during the site visit, and it was concluded that monitoring system is completely in accordance with the monitoring plan. This fact is also confirmed by the documented evidences of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz".	OK	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?	Not applicable	Not applicable	Not applicable
103	Is the verification based on the	Not applicable	Not	Not

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitoring reports of all JPAs to be verified?		applicable	applicable
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	Not applicable	Not applicable	Not applicable
104	Does the monitoring period not overlap with previous monitoring periods?	Not applicable	Not applicable	Not applicable
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	Not applicable	Not applicable	Not applicable
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	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting	Not applicable	Not applicable	Not applicable

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?	Not applicable	Not applicable	Not applicable
109	Is the sampling plan available for submission to the secretariat for the JISC.s ex ante assessment? (Optional)	Not applicable	Not applicable	Not applicable
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?	Not applicable	Not applicable	Not applicable

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. Please in the monitoring report provide detailed information about LoAs of JI project issued by the Parties involved.	Table 1, 90	Information with LoAs number and date of issuance is described in the monitoring report section A.2.	Issue is closed based on the amendments that were made by MR developers.
CAR 02. Please indicate in the monitoring report the scope of considered JI project.	Table 1, 92	Scope (1) and scope (10) relate to JI project. The information provided according to the registered PDD.	Scopes of the project were indicated in the monitoring report. Issue is closed.
CAR 03. Please provide more information about JI working team of PJSC “NJSC “Chornomornaftogaz”.	Table 1, 95 (b)	Situation about JI working team was described in the monitoring report.	Issue is closed.
CAR 04. Please provide special reporting forms with initial monitoring data that are kept during sampling.	Table 1, 95 (b)	Sampling forms were provided to the verification team.	According to the revision of provided documented evidences, issue is closed.
CAR 05. Please check and correct	Table 1,	Formulae 1 used for project	Issue is closed.

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
the formula of project emissions calculation according to registered PDD.	95 (d)	emissions calculation was corrected in compliance to the PDD.	
CL 01. Please clarify a reason of difference of emission reductions achieved for the monitoring period 01/01/2012-30/06/2012 and stated in the MR and the value of emission reductions estimated in the PDD version 02 for the same period.	Table 1, 92	Estimation of emission reductions stated in the registered PDD was performed based on historical and forecasted data. Emission reductions calculation provided in the monitoring report was done using actual monitoring data for the monitoring period 01/01/2012-30/06/2012. Currently, amount of emission reduction from the monitoring report is slightly lower than it was estimated in the final PDD. Please refer for details to MR and Supporting document 1.	According to clarification, issue is closed.