VERIFICATION REPORT
OJSC ODESAGAS

VERIFICATION OF THE REDUCTION OF NATURAL GAS EMISSIONS AT OJSC "ODESAGAS" GATE STATIONS AND GAS DISTRIBUTION NETWORKS

(THIRD PERIODIC FOR 1-3 QUARTERS OF 2010)

Report No. UKRAINE 0163/2010
REVISION NO. 01

BUREAU VERITAS CERTIFICATION HOLDING SAS

Report No: Ukraine 0163/2010

VERIFICATION REPORT

Date of first issue: 03.10.2010.	Organizational unit: Bureau Veritas Certification Holding
Client: OJSC “Odesagas”	Client’s representative: Vitaliy Gerasymenko

Summary:
Bureau Veritas Certification has made the verification of the project “Reduction of natural gas emissions at OJSC “Odesagas” gate stations and gas distribution networks” implemented in Odesa city and region, Ukraine on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for due project’s exploitation, its monitoring and reporting, as well as the host country criteria.
The verification scope is defined as a periodic independent review and 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) review of the Monitoring Report, Project Design Document and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures. The first output of the verification process is a list of Clarification Requests, Corrective Actions Requests, Forward Actions Requests (CL, CAR and FAR), presented in Appendix A.
Verification was conducted on the ground of the monitoring report (for the period from January 01, 2010 till September 30, 2010), monitoring plan, determined PDD, edition 6 as of 10.12.2009 and other accompanying documents produced to the representatives of the Bureau Veritas Certification by the project participants.
In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in 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 ready to generate GHG emission reductions. The GHG emission reduction is calculated without material misstatements.
Our opinion relates to the project’s GHG emissions and resulting GHG emissions reductions reported and related to the valid and registered project baseline and monitoring, and its associated documents. Based on information seen and evaluated we confirm that the implementation of the project has resulted in 297047,50 t CO2e reductions during period from 01/01/2010 up to 30/09/2010.

Report No: UKRAINE/0163/2010	Subject Group: JI
Project title: «Reduction of natural gas emissions at OJSC “Odesagas” gate stations and gas distribution networks»	
Work approved by: Flavio Gomes – Operational Manager	
Work was carried out by: Team Leader, leading verifier: Flavio Gomes Team Member, verifier: Oleg Skoblyk Team Member, verifier: Kateryna Zinevych	
Work was verified by: Ivan Sokolov – Internal Technical Reviewer	

Date of this revision	Rev. No.:	Number of pages:
03/10/2010	01	49

Key words

Climate Change, Kyoto Protocol, JI, Emission Reduction, Verification

Abbreviations

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

Contents

1. INTRODUCTION

OJSC Odesagas has commissioned Bureau Veritas Certification Holding SAS to verify the emissions reductions of its JI project "Reduction of natural gas emissions at OJSC “Odesagas” gate stations and gas distribution networks” in Odessa city and Odessa region, Ukraine, according to UNFCCC requirements and host party requirements to JI.
This report summarizes the findings of the verification of reductions, performed on the basis of criteria given to provide for consistent project operations, monitoring and reporting, and contains a statement for the verified emission reductions The order includes the initial and second periodic verification of the project.
The report is based on the Initial Verification Report Template Version 3.0, December 2003, and on the Periodic Verification Report Template Version 3.0, December 2003, both contained in the Validation and Verification Manual (VVM) published by International Emission Trading Association (IETA).
Second periodic verification have been performed. It was based on analysis of project documents including PDD, monitoring plan, determination report, monitoring report and further documentation. Project determination was performed by Bureau Veritas Certification Holding SAS. Determination results are given in the report: “Determination of the project “Reduction of natural gas leakages at the shut-off stations and natural gas networks of OJSC Odesagas”, Ukraine”, as of December 12, 2009. The project is approved by the National Environmental Investments Agency of Ukraine and Ministry of Climate and Energy Danish Energy Agency (Letters of Approval are attached).

1.1 Objectives

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

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

Initial Verification: The objective of an initial verification is to verify that the project is implemented as planned, to confirm that the monitoring system is in place and fully functional, and to assure that the project will generate verifiable emission reductions. A separate initial verification prior to the project entering into regular operations is not a mandatory requirement.

Periodic Verification: The objective of the periodic verification is to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan; furthermore the periodic verification evaluates

the GHG emission reduction data and express a conclusion with a high, but not absolute, level of assurance about whether the reported GHG emission reduction data is free of material misstatements; and verifies that the reported GHG emission data is sufficiently supported by evidence, i.e. monitoring records. If no prior initial verification has been carried out, the objective of the second periodic verification also includes the objectives of the initial verification.

The verification follows UNFCCC criteria referring to the Kyoto Protocol criteria, the JI rules and modalities, and the subsequent decisions by the JISC, as well as the host country criteria.

1. 2 Scope of Verification

Verification scope is defined as an independent and objective review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions. The verification is based on the submitted monitoring report and on determination of the PDD including analysis of the project's baseline, monitoring plan and other relevant documents. Information in these documents is reviewed in accordance with UNFCCC and Kyoto Protocol requirements. Bureau Veritas Certification used recommendations contained in Validation and Verification Manual for evaluation of project risks and generation of emissions reduction units (ERU).
Verification was intended to check project monitoring system for precise assessment of GHG emission reductions.

Verification team worked with Monitoring Reports, rev. 1 (dated 01/10/2010), reflecting the period from January 01, 2010 to September 30, 2010 inclusive.

1.3 Description of the project

OJSC Odesagas is the company uniting gas supply facilities of 26 districts in Odessa region and gas supply facility in Odessa, and providing natural gas transportation and supply to industrial and domestic consumers. OJSC Odesagas controls 1917 gas-distribution posts and cabinet gas-distribution posts, among them 1851 (GDP, CGDP) are the OJSC Odesagas property. The structure of current gas transport rates does not include depreciation and investment needs of gas distribution enterprises, which does not ensure receipt of funds for performance of necessary repair works and modernization of gas networks, purchase of appropriate engineering equipment and components, and also results in increase of natural gas leakage at the objects of OJSC Odesagas.

At the moment OJSC Odesagas only detects leakages with the help of detectors according to the Ukrainian Gas Supply System Safety Rules in order to avoid emergency and explosive situations. Measurement of the

leakage volume, its registration and accounting are not performed, and appropriate measuring devices are missing. According to the conducted research leakage volume of natural gas for OJSC Odesagas can make 41 million m^3 per year.

The main goal of the project is reduction of natural gas leakages in gas distribution posts and in cabinet gas distribution posts, which will result in reduction of methane emissions into the air, which is a greenhouse gas. The main sources of leakage are junctions of the elements of gas-distribution posts and cabinet gas-distribution posts. Many connecting parts of GDP and CGDP require repair in the result of quick wear of compactor elements. Within the scope of the project for repair of GDP and CGDP equipment, for the purpose of leakage elimination, modern compacting materials will be used, replacing service and repair practice based on rubberized asbestos fabric and rubber gaskets, and compacting padding made of cotton fiber with fat soakage and asbestos graphite filler, which results in additional methane leakage, which is a greenhouse gas.

The project activity includes:

- Implementation of purposeful examination and technical maintenance (PETM) of gas-distribution posts and cabinet gas-distribution posts – modern and economically most efficient practice, which allows not only detection of leaking areas, but also determination of leakage volume (i.e., potential volume of gas leakage reduction. This is a key information for substantiation of types of repair and priority choice of its objects, which is important under short financing for elimination of all leakages. This activity will include purchase and calibration of modern measuring equipment, appropriate training of employees, development of monitoring map with the list of all equipment components to be regularly examined, creation of leakage data collection and storage system, and implementation of internal audit and quality system for elimination and accounting of methane leakage.
- Detection and measurement of leakage: monitoring system of leakages, including eliminated leakages (repaired equipment components) will be exercised on a regular basis (once in four days or once in a week, depending on the type of equipment) by specially trained personnel. Each component will be checked according to the monitoring map, and detected leakage will be duly marked with individual number; gas leakage volumes will be measured and registered in the database.
- Elimination of all detected leakages: repair of leaking junctions of GDP and CGDP elements within the scope of this project will vary from replacement of gaskets and wedge plugs, use of new sealants or compacting materials, to capital repair and replacement of safety valves

of pressure regulators, piston rods, installation of natural gas gauges. Repaired GDP and CGDP equipment components will be regularly checked as a part of a standard monitoring program (see above) to make sure they have not become the source of leakage again.

Duration of the project is not limited, as PETM, monitoring and leakage elimination programs are aimed to become a part of work of OJSC Odesagas. Reduction of emissions equivalent to CO2 is stated for period of crediting 18 years according to modality and Joint Implementation Procedures.

2 METHODOLOGY

Verification included preliminary analysis of documents, examination of objects under the project, and active communication with selected experts and stakeholders' representatives.

Verification Protocol is a part of verification.

According to the Validation and Verification Manual (IETA/PCF) a verification protocol is attached to the project, which guarantees transparency of verification process. The protocol shows, in a transparent manner, verification criteria, means of verification and the results of criteria verification. Verification protocol solves the task of specification and explanation of requirements to the project.

It ensures a transparent verification process.

Verification protocol consists of one table under Initial Verification checklist and four tables under Periodic verification checklist. Different columns in these tables are described in Figure 1.

The overall verification in accordance with Verification Agreement was conducted using Bureau Veritas Certification procedures.

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

Initial Verification Protocol Table 1			
Objective	**Reference**	**Comments**	**Conclusion (CARs/FARs)**
The requirements the project must	Gives reference to where the	Description of circumstances	This is either acceptable based on evidence provided

meet	requirement is found.	and further comments on the conclusion	(OK), or a Corrective Action Request (CAR) of risk or non-compliance of the stated requirements. Forward Action Request (FAR) indicates essential risks for further periodic verifications.

Periodic Verification Checklist Protocol Table 2: Data Management System/Controls		
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**
The project operator's data management system/controls are assessed to identify reporting risks and to assess the data management system's/control's ability to mitigate reporting risks. The GHG data management system/controls are assessed against the expectations detailed in the table.	A score is assigned as follows: • Full - all best-practice expectations are implemented. • Partial - a proportion of the best practice expectations is implemented • Limited - this should be given if little or none of the system component is in place.	Description of circumstances and further commendation to the conclusion. This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non compliance with stated requirements. The corrective action requests are numbered and presented to the client in the verification report. The Initial Verification has additional Forward Action Requests (FAR). FAR indicates essential risks for further periodic verifications.

Periodic Verification Protocol Table 3: GHG calculation procedures and management control testing		
Identification of potential	**Identification, assessment and testing of management**	**Areas of residual**

reporting risk	controls	risks
Identify and list potential reporting risks based on an assessment of the emission estimation procedures, i.e. ➢ the calculation methods, ➢ raw data collection and sources of supporting documentation, ➢ reports/databases/information systems from which data is obtained. Identify key source data. Examples of source data include metering records, process monitors, operational logs, laboratory/analytical data, accounting records, utility data and vendor data. Check appropriate calibration and maintenance of equipment, and assess the likely accuracy of data supplied. Focus on those risks that impact the accuracy, completeness and consistency of the reported data. Risks are weakness in the GHG calculation systems and may include: ➢ manual transfer of data/manual calculations, ➢ unclear origins of data, ➢ accuracy due to technological	Identify the key controls for each area with potential reporting risks. Assess the adequacy of the key controls and eventually test that the key controls are actually in operation. Internal controls include (not exhaustive): ➢ Understanding of responsibilities and roles ➢ Reporting, reviewing and formal management approval of data; ➢ Procedures for ensuring data completeness, conformance with reporting guidelines, maintenance of data trails etc. ➢ Controls to ensure the arithmetical accuracy of the GHG data generated and accounting records e.g. internal audits, and checking/ review procedures; ➢ Controls over the computer information systems; ➢ Review processes for identification and understanding of key process parameters and implementation of calibration maintenance regimes	Identify areas of residual risks, i.e. areas of potential reporting risks where there are no adequate management controls to mitigate potential reporting risks Areas where data accuracy, completeness and consistency could be improved are highlighted.

limitations, ➢ lack of appropriate data protection measures? For example, protected calculation cells in spreadsheets and/or password restrictions.	➢ Comparing and analysing the GHG data with previous periods, targets and benchmarks. When testing the specific internal controls, the following questions are considered: 1. Is the control designed properly to ensure that it would either prevent or detect and correct any significant misstatements? 2. To what extent have the internal controls been implemented according to their design; 3. To what extent have the internal controls (if existing) functioned properly (policies and procedures have been followed) throughout the period? 4. How does management assess the internal control as reliable?	

Periodic Verification Protocol Table 4: Detailed audit testing of residual risk areas and random testing		
Areas of residual risks	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including Forward Action Requests)**
List the residual areas of risks (Table 2 where detailed audit testing is	The additional verification testing performed is described. Testing may include: 1. Sample cross	Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties should be highlighted. Errors and uncertainty can be due to

necessary. In addition, other material areas may be selected for detailed audit testing.	checking of manual transfers of data 2. Recalculation 3. Spreadsheet 'walk throughs' to check links and equations 4. Inspection of calibration and maintenance records for key equipment ➢ Check sampling analysis results ➢ Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.	a number of reasons: ➢ Calculation errors. These may be due to inaccurate manual transposition, use of inappropriate emission factors or assumptions etc. ➢ Lack of clarity in the monitoring plan. This could lead to inconsistent approaches to calculations or scope of reported data. ➢ Technological limitations. There may be inherent uncertainties (error bands) associated with the methods used to measure emissions e.g. use of particular equipment such as meters. ➢ Lack of source data. Data for some sources may not be cost effective or practical to collect. This may result in the use of default data which has been derived based on certain assumptions/conditions and which will therefore have varying applicability in different situations. The second two categories are explored with the site personnel, based on their knowledge and experience of the processes. High risk process parameters or source data (i.e. those with a significant influence on the reported data, such as meters) are reviewed for these uncertainties.

Verification Protocol Table 5: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 2/3**	**Summary of project owner response**	**Verification conclusion**
If the conclusions from the Verification are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 2, 3 and 4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the verification team should be summarized in this section.	This section should summarize the verification team's responses and final conclusions. The conclusions should also be included in Tables 2, 3 and 4, under "Final Conclusion".

Figure 1 Verification protocol tables

2.1 Review of Documents

The Monitoring Report (MR) version 1 submitted by OJSC Odesagas and additional background documents related to the project design and baseline, i.e. Laws of Ukraine, Project Design Documents (PDD), applied methodology, have been reviewed in accordance with Kyoto Protocol requirements and Clarifications on Verification Requirements determined by a Designated Operational Entity.

The verification findings presented in this report relate to the project as described in the PDD version 06 and Project Monitoring Report version 01.

2.2 Stakeholders' comments

On 07/09/2010 Bureau Veritas Certification Holding SAS performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of OJSC Odesagas were interviewed. The main topics of the interviews are summarized in the Table 1.1.

Table 1.1 Interview topics

Interviewed organization	Interviews Topics
OJSC Odesagas	Organizational structure. Responsibilities and authorities. Training of personnel. Quality management procedures and technology. Rehabilitation /Implementation of equipment (records). Metering equipment control. Metering record keeping system, database.
Local Stakeholders: Heating Network Administration	Social impacts. Environmental impacts.
Consultant: ITI Biotekhnika UAAN	Baseline methodology. Monitoring plan. Monitoring report. Deviations from PDD.

Bureau Veritas Certification published the Monitoring report on the website (http://www.bureauveritas.com/) on 01/10/2010 for comments.

2.3 Answers to Clarification Requests (CL), Corrective Action Requests (CAR) and Forward Action Requests (FAR)

The objective of this phase of the verification is to review the answers to Clarification Requests, Forward Action Requests and any other ones required for Bureau Veritas Certification to make a positive conclusion on the GHG emission reduction calculation.

Findings established during the initial verification can either be seen as a non-fulfillment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

Corrective Action Requests (CAR):
i) there is a clear deviation from the implementation of the project as defined by the PDD;
ii) requirements to the MP have not been met;
iii) there is a risk that the project would not be able to deliver (high quality) ERUs.Forward Action Requests (FAR) are issued, where:
iv) the actual status requires a special focus on this item for the next consecutive verification, or

v) an adjustment of the MP is recommended.

The verification team may also use the term Clarification Request (CL), which would be where:
vi) additional information is needed to fully clarify an issue.

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 FINDINGS

In the following sections, the findings of the verification are stated. The verification findings for each verification subject are presented as follows:
1) The findings from the desk review of the original project activity documents and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Verification Protocol in Appendix A.
2) The conclusions for verification subject are presented.

In the final verification report, the discussions and the conclusions that followed the preliminary verification report and possible corrective action requests should also be encapsulated in this section.

3.1 Remaining issues CAR's, FAR's from previous determination/verification

A task of verification is to check the remaining issues from the previous determination or issues which are clearly defined for assessment in the PDD. The determination report prepared by Bureau Veritas Certification notes following open issues.

No CARs remained open since last periodic verification.

Conclusion of the verification team

Evidencing documents were provided to verifiers and were found satisfactory.

3.2 Project implementation

3.2.1 Discussion

The scrutiny of a proper implementation of a project is a key issue of an Initial Verification.

JI project is implemented at gas-distribution stations of OJSC Odesagas, included to the project. List of performed works under the Project is given in the table below.

No.	Measures	Quantity of performed works units	Beginning of construction	Commissioning
9 months (January-September) of 2010				
1	Reconstruction and hermetization of GDP (CGDP)	209 units	April 2010	June 2010

Table 1.2. Implementation status (in accordance with the PDD version 06).

During 9 months (January-September) of 2010 209 objects were reconstructed and pressurized.

List of objects which have passed reconstruction is given in Appendix A to the MR version 1.

3.2.2 Findings

None.

3.3 Internal and External Data

3.3.1 Discussion

Specifications used in calculation of methane emission reductions are listed in the table 1.3 below.

Identification number	Variable data	Sources of data	Form of data received (electronic/on paper)	Comments
1. i	Number	Detected leakage was eliminated and then measured	Electronic	Detected leakage is awarded a respective No. according to specially

		again		created GDP Equipment Logbook
2. Ti	Time	Number of hours of equipment operation by the time leakage was detected	Electronic	Number of hours of equipment operating during the year after its replacement (repair)
3.	Date	Reconstruction and monitoring data	Electronic	Date of reconstruction used together with the number of hours of equipment operation to determine general number of hours of operation Should leaks be repeated, it is taken the same as the date of last inspection which showed the absence of leakage
4. GWPCH4	Global warming potential	IPCC	Electronic	Poject developer will conduct monitoring of any potential changes caused by global warming for methane,

				published by IPCC and approved by COP
5. FCH4,i	Leak speed	Methane leak speed for each detected leakage	Electronic	
6.	Temperature and pressure	Gas temperature and pressure	Electronic	Measured for determination of CH4 density Note: Notwithstanding measurements, many variants are not expected as pressure and temperature at different stations are taken constant
7. URi	Equipment uncertainty factor; measurement of leakage	Information manufacturer and/or IPCC GPG	Electronic	Where possible, 95% confidence interval is evaluated; advice of management board given in section 6 2000 IPCC of GPG If manufacturer of equipment where leaks are measured specifies uncertainty range without specification of

				confidence internal, it can be taken 95%
8. *Vbag*	Reservoir capacity	Measurement data	Electronic and paper	Reservoir is filled in with water. Amount of water measured by flow meter will be reservoir capacity Measurement showed that reservoir capacity is 0.87 m^3.
9. $w_{sampleCH4,i}$	Methane concentration in sample	Measurement reports	Electronic	Methane concentration in sample (in reservoir) of leak *i* is the difference between methane concentration in the beginning and in the end of measurement Concentration is measured with gas analyzer EX-TEC® SR5.
10. *ti*	Time	Measurement reports	Electronic	Time during which methane concentration in reservoir reaches certain level is determined with stop-

				watch. Measurement starts from the moment the tap is opened on the tank cap and ends when methane concentration inside the reservoir reaches certain level.

Table 1.3. Specifications used in calculation of GHG emissions.

3.3.2 Findings

Outstanding questions connected with baseline and additionality are given in Table 5 below (See CAR1, CL2, CL3).

3.3.3 Conclusion

Project complies with requirements.

3.4 Environmental and Social Indicators

3.4.1 Discussion

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

3.4.2 Findings

None

3.4.3. Conclusion

The Project complies with Ukrainian Laws, and with the JI project requirements.

3.5 Management and Operational System

3.5.1 Discussion

In order to ensure successful implementation of a project and the credibility and verifiability of the emissions reductions achieved, the project must have a well defined management and operational system.
Systems of administration, management and control of OJSC Odesagas are organized in accordance with the laws of Ukraine. The audit team knows the laws required for project implementation. The team has been provided with equipment descriptions and technological instructions. Operational instructions are in place. Inspection schedules are duly agreed as provided for by requirements of the law of Ukraine.

3.5.2 Findings

None

3.5.2 Conclusion

The Monitoring Report and the Management and Operational Systems are eligible for reliable project monitoring.

4 THIRD PERIODIC VERIFICATION FINDINGS (1-3 QUARTERS OF 2010)

4.1 Completeness of Monitoring

4.1.1 Discussion

The reporting procedures reflect the monitoring plan completely. It is confirmed that the monitoring report does comply with the monitoring methodology and PDD.
All 10 parameters were determined as prescribed. All reported parameters were determined. The complete data is stored electronically and documented. The necessary

monitoring procedures defined in internal procedures and additional internal documents have been submitted for determination.
According to PDD version 06, emission reductions during first 9 months of 2010 monitoring period were expected 345000 t CO2 e. According to Monitoring Report version 01 emission reductions achieved are **297047,50 t** CO2 e. The difference in the emission reductions are explained as follows. The reductions expected in PDD are expected reductions, but due to the lack of financing project activities were not performed in full.

4.1.2 Findings

None

4.1.3 Conclusion

The project complies with all requirements.

4.2 Accuracy of Emission Reduction Calculation

4.2.1 Discussion

The verification team confirms that emission reduction calculations have been performed according to the Monitoring Plan and to the calculation methodology reported in the Section D.3.4. of the Monitoring Report version 01.

Calculation of methane leaks has taken into account possible error of devices used in measurement of leaks, and calculation uncertainty.

4.2.2 Findings

None

4.2.3 Conclusion

The project complies with all requirements.

4.3 Quality Evidence to Determine Emissions Reductions

4.3.1 Discussion

Verification of the calculation of emission reductions is based on internal data. The origin of those data was explicitly checked. Further on, processing of those data in the monitoring workbook Excel sheet was checked where predefined algorithms compute the net annual

profit gained from the emission reductions. All equations and algorithms used in the different workbook sheets were checked. Inspection of calibration and maintenance records for gas analyzers was performed.
Necessary procedures have been defined in internal procedures and additional internal documents relevant for the determination of the various parameters of the baseline.

4.3.2 Findings

None

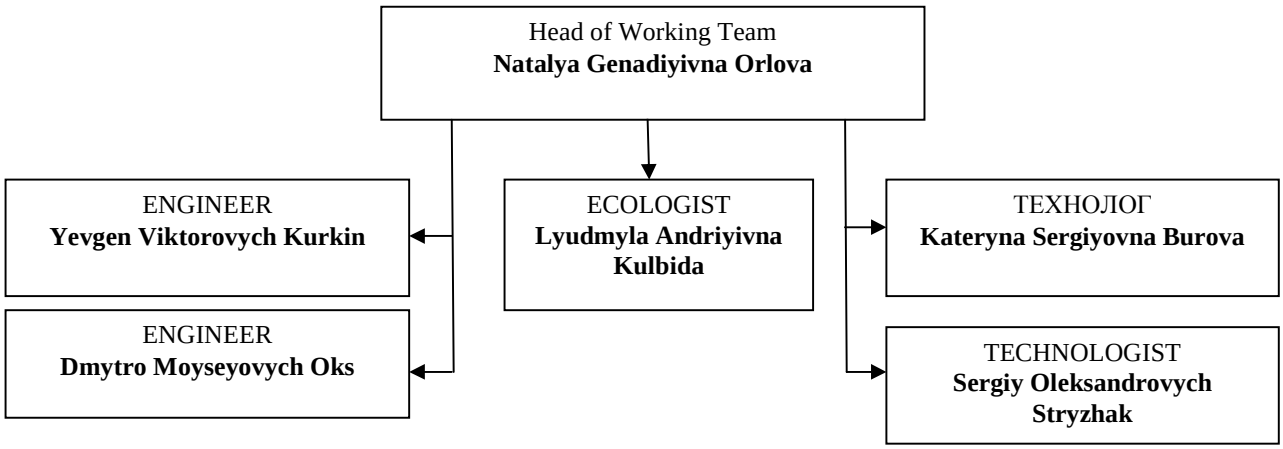
4.3.3 Conclusion

The project complies with all requirements.

4.4 Management System and Quality Assurance

4.4.1 Discussion

Coordination of work of all departments and services of OJSC Odesagas concerning project implementation is done by specially created Working team. The structure of Working team is shown on the Picture 3.



Pic. 3 Structure of Working team

Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya

Genadiyivna Orlova) on the basis of received information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI Biotekhnika UAAN.

4.4.2 Findings

None

4.4.3 Conclusion

The project complies with all requirements.

5 PROJECT SCORECARD

Risk Areas		Conclusions			Summary of findings and comments
		Baseline Emissions	Project Emissions	Calculated Emission Reductions	
Completeness	Source coverage/ boundary definition	✓	✓	✓	All relevant sources are covered by the monitoring plan and the boundaries of the project are defined correctly and transparently.
Accuracy	Physical Measurement and Analysis	✓	✓	✓	State-of-the-art technology is applied in an appropriate manner. Appropriate backup solutions are provided.
	Data calculations	✓	✓	✓	Emission reductions are calculated correctly

Risk Areas		Conclusions			Summary of findings and comments
		Baseline Emissions	Project Emissions	Calculated Emission Reductions	
	Data management & reporting	✓	✓	✓	Data management and reporting were found to be satisfying.
Consistency	Changes in the project	✓	✓	✓	Results are consistent to underlying raw data.

6 THIRD PERIODIC VERIFICATION STATEMENT (1-3 QUARTERS OF 2010)

Bureau Veritas Certification has performed a determination of Reduction of natural gas leakages at the shut-off stations and natural gas networks of OJSC Odesagas Project. Verification was done in accordance with UNFCCC criteria and host party criteria.

OJSC Odesagas 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 Monitoring and Verification Plan indicated in the PDD version 06, i.e.: project development and organization of data collection, and calculations and determination of GHG emission reductions.

Bureau Veritas Certification verified the project Monitoring Report version 01 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in validated and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. Monitoring system is duly organized. The project is generating the GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is calculated without material misstatements. We confirm the following statement:

Reporting period: From 01/01/2010 to 30/09/2010
Baseline emissions : 359 666,22 t CO2 equivalents
Project emissions : 62 618,72 t CO2 equivalents
Emission Reductions : 297 047,50 t CO2 equivalents

7 REFERENCES

Category 1 Documents:
Main Documents directly relating to the project registration.

/1/ PDD version 06, dated December 10, 2009

/2/ Monitoring Report version 01, dated October 01, 2010

/3/ Determination Report of Bureau Veritas Certification Holding SAS dated December 10, 2009

/4/ Letter of Approval, National Agency of Ecological Investments of Ukraine, #1566/23/7 dated 25.12.2009.

/5/ Ministry of Climate and Energy Danish Energy Agency #1602/1102-0023, dated 21.12.2009

Category 2 Documents:
Background documents related to the project and/or methodology.

/1/ Documents checked during the verification onsite are presented in Appendix B

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

/1/ Vitaliy Oleksandrovych Gerasymenko – the executive director of OJSC Odesagas

/2/ Yakiv Lvovych Zatynaiko - the chief engineer of OJSC Odesagas

/3/ Natalya Genadiyivna Orlova – VTV head of OJSC Odesagas

/4/ Dmytro Moyseyovych Oks – head of VTV UEGG in Odessa of OJSC

Odesagas

/5/ Lyudmyla Andriyivna Kulbida - the LOP engineer of OJSC Odesagas

/6/ Kateryna Sergiyivna Burova - the VTV engineer of OJSC Odesagas

/7/ Sergiy Oleksandrovych Stryzhak – head of SEUG and DV UEGG in Odessa of OJSC Odesagas

/8/ V.Ya. Khodorchuk – scientist, secretary of ITI Biotekhinka UAAN.

/9/ V.I. Dorovskykh – head of laboratory of ITI Biotekhinka UAAN, candidate of technical sciences

/10/ M.K. Tsvigovsky – deputy head of department of ITI Biotekhinka UAAN, candidate of technical sciences

/11/ Vyacheslav Vitaliyevych Ivchuk – Chief engineer of Odessa Interdistrict Department

/12/ Sergiy Mykolayovych Korzhov – Chief engineer of Ananyev department

/13/ Valeriy Ivanovych Yakimchuk – Chief engineer of Berezivsky department

/14/ Oleksandr Terentiyovych Ivanov – Chief engineer of Bolgrad department

/15/ Oleksandr Mykolayovych Zhebrovsky – Chief engineer of Ivanivsky department

/16/ Oleksandr Leontiyovych Bogovyk – Chief engineer of Ovidiopil department

/17/ Andriy Oleksiyovych Shyshovsky – Head of permanent commission for realization of regulatory policy of Odessa municipal council

/18/ Anatoliy Yuriyovych Ivanov – Deputy head of commission for fuel and power complex, energy saving and utility complex issues

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8 APPENDIX A: JI PROJECT VERIFICATION PROTOCOL

Initial Verification Protocol
Table 1

Objective	References	Comments	Conclusion (CARs/FARs)
1. Opening Session			
1.1. Introduction to audits	***/1/, /2/, /3/***	The intention and the target of the audit were illustrated to the participants of the audit. Participants at the audit were the following persons: Verification Team: Flavio Gomes Bureau Veritas Certification Climate Change Lead Verifier, Operational Manager Oleg Skoblyk Bureau Veritas Certification Climate Change Verifier Kateryna Zinevych Bureau Veritas Certification Climate Change Verifier Report checked by: Ivan Sokolov Bureau Veritas Certification Internal Technical Reviewer OJSC Odesagas employees:	OK

Objective	References	Comments	Conclusion (CARs/FARs)
		Vitaliy Oleksandrovych Gerasymenko – the executive director of OJSC Odesagas Yakiv Lvovych Zatynaiko - the chief engineer of OJSC Odesagas Natalya Genadiyivna Orlova – VTV head of OJSC Odesagas Dmytro Moyseyovych Oks – head of VTV UEGG in Odessa of OJSC Odesagas Lyudmyla Andriyivna Kulbida - the LOP engineer of OJSC Odesagas Kateryna Sergiyivna Burova - the VTV engineer of OJSC Odesagas Sergiy Oleksandrovych Stryzhak – head of SEUG and DV UEGG in Odessa of OJSC Odesagas Designer's representatives: V.Ya. Khodorchuk – scientist, secretary of ITI Biotekhinka UAAN. V.I. Dorovskykh – head of laboratory of ITI Biotekhinka UAAN, candidate of technical sciences	

Objective	References	Comments	Conclusion (CARs/FARs)
		M.K. Tsvigovsky – deputy head of department of ITI Biotekhinka UAAN, candidate of technical sciences Public representatives: Andriy Oleksiyovych Shyshovsky – Head of permanent commission for realization of regulatory policy of Odessa municipal council Anatoliy Yuriyovych Ivanov – Deputy head of commission for fuel and power complex, energy saving and utility complex issues. Mykola Leonidovych Skoryk – Head of Odessa Regional Council.	
1.2. Clarification of access to data archives, records, plans, drawings etc.	**/1/, /2/, /3/**	The verification team got open access to all required plans, data, records, drawings, diagrams and to all relevant facilities.	OK
1.3. Contractors for equipment and installation works	**/1/, /2/, /3/**	Project has been implemented as defined in the PDD and the implementation is evidenced by statements of work completion.	OK
1.4. Actual status of installation works	**/1/, /2/, /3/**	Implementation of heating networks for elimination of leaks is carried out according to project plan. See section A.6 of Monitoring Report.	OK
2. Open issues indicated in validation report			
2.1. Missing steps to final	**/4/**	Based on the validation report the verification team identified	OK

Objective	References	Comments	Conclusion (CARs/FARs)
approval		no missing steps. The project has been approved by National Environmental Investment Agency of Ukraine and by Ministry of Climate and Energy Danish Energy Agency.	
3. Implementation of the project			
3.1. Physical components	**/1/, /2/, /3/**	Project has been implemented as defined in the PDD with some deviations, see cl. 1.4 and 3.1 of Verification Report.	OK
3.2. Project boundaries	**/1/, /2/, /3/**	Project boundaries are set as described in PDD.	OK
3.3. Monitoring and metering systems	**/1/, /2/, /3/**	OJSC Odesagas has all relevant equipment for monitoring of specifications related to the project. All equipments are of reputed make. They and included in the structured calibration plans where they are periodically calibrated. The procedures documented for the equipment operation are in place.	OK
3.4. Data uncertainty	**/1/, /2/, /3/**	All measuring equipment corresponds to the regulatory requirements on accuracy of meters and measurement deviations applicable in Ukraine. Verification team analyzed submitted documents characterizing metering devices. Types of devices are determined in the regulatory documents of Ukraine. Accuracy of devices is guaranteed by the manufacturer, possible error	OK

Objective	References	Comments	Conclusion (CARs/FARs)
		has been calculated and confirmed by device passport. Therefore, uncertainty level of measurements corresponds to technologies used, and is taken into account when taking data from the device.	
3.5. Calibration and quality assurance	**/1/, /2/, /3/**	All monitoring equipment is part of detailed calibration plan. The strict control is maintained over the calibration process. On the date of verification, Calibration records of the measuring and monitoring equipment has been verified at site. All the meters have been found to be calibrated regularly as per determined calibration plan for each site. The following remarks have been given.	OK
3.6. Data acquisition and data processing systems	**/1/, /2/, /3/**	All measurements of methane leaks are done by operative team equipped as necessary. A program for initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas is executed for each object (gas distribution post) of measurement. Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya Genadiyivna Orlova) on the basis of received information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI	OK

Objective	References	Comments	Conclusion (CARs/FARs)
		Biotekhnika UAAN.	
3.7. Reporting procedures	**/1/, /2/, /3/**	The Monitoring Plan defines responsible persons for collection of the data required for GHG emission reduction calculations. Calculations are transparent and are filled in annually into a predefined Excel spreadsheet.	OK
3.8. Documented instructions	**/1/, /2/, /3/**	Monitoring report, section B, version 01 specifies procedure for data collection, archiving (including software use), and also reflects monitoring, metering and reporting procedures. This information was verified during the visit to OJSC Odesagas and is satisfactory.	OK
3.9. Qualification and training	**/1/, /2/, /3/**	Refer to section 3.6 above.	OK
3.10. Responsibilities	**/1/, /2/, /3/**	Refer to section 3.6 above.	OK
3.11. Troubleshooting procedures	**/1/, /2/, /3/**	Detection, liquidation and registration of failures and emergencies at gas-distribution posts of OJSC Odesagas is carried out according to Safety rules of gas-supply systems of Ukraine.	OK
4. Internal Data			
4.1. Type and sources of internal data	**/1/, /2/, /3/**	The internal parameters are obtained according to the monitoring plan.	OK
4.2. Data collection	**/1/, /2/,**	All measurements of methane leaks are done by operative	OK

Objective	References	Comments	Conclusion (CARs/FARs)
	/3/	team equipped as necessary. A program for initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas is executed for each object (gas distribution post) of measurement. Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya Genadiyivna Orlova) on the basis of received information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI Biotekhnika UAAN.	
4.3. Quality assurance	**/1/, /2/, /3/**	Monitoring report, section B, version 01 specifies procedure for data collection, archiving, and also reflects monitoring, metering and reporting procedures. This information was verified during the visit to OJSC Odesagas and is satisfactory. Monitoring procedures are absolutely effective.	OK
4.4. Significance and reporting risks	**/1/, /2/, /3/**	All data are collected with periodicity established in the norms of monitoring plan. Record-keeping is controlled by the management bodies of OJSC Odesagas and by the representatives of ITI Biotekhnika UAAN. Probability of discrepancy in the report is rather low.	OK

Objective	References	Comments	Conclusion (CARs/FARs)
5. External Data			
5.1. Type and sources of external data	**/1/, /2/, /3/**	External data are not used.	OK
5.2. Access to external data	**/1/, /2/, /3/**	Refer to 5.1	OK
5.3. Quality assurance	**/1/, /2/, /3/**	Refer to 5.1	OK
5.4. Data uncertainty	**/1/, /2/, /3/**	Refer to 5.1	OK
5.5. Emergency procedures	**/1/, /2/, /3/**	Refer to 5.1	OK
6. Environmental and Social Indicators			
6.1. Implementation of measures	**/1/, /2/, /3/**	Environmental and social indicators are not defined in the monitoring plan. Hence the question is not applicable. But the public and staff representatives informed verification team during the audit that the project is of great importance as it implies reconstruction of gas-distribution posts, which will result in improvement of gas supply quality to consumers. No negative environmental impact is expected.	OK
6.2. Monitoring equipment	**/1/, /2/, /3/**	See chapter 6.1.	OK
6.3. Quality assurance procedures	**/1/, /2/,**	See chapter 6.1.	OK

Objective	References	Comments	Conclusion (CARs/FARs)
	/3/		
6.4. External data	**/1/, /2/, /3/**	See chapter 6.1.	OK
7. Management and Operational System			
7.1. Documentation	**/1/, /2/, /3/**	The company complies with all legal and statutory requirements of the Ukraine and requirements of the verification team. OJSC Odesagas has all the necessary permissions and licenses, issued by the State Inspection on Labor Safety.	OK
7.2. Qualification and training	**/1/, /2/, /3/**	No special trainings for operation of new equipment are required. All trainings under the project were performed by equipment suppliers, and their cost is included to the cost of equipment.	OK
7.3. Allocation of responsibilities	**/1/, /2/, /3/**	All measurements of methane leaks are done by operative team equipped as necessary. A program for initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas is executed for each object (gas distribution post) of measurement. Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya Genadiyivna Orlova) on the basis of received	OK

Objective	References	Comments	Conclusion (CARs/FARs)
		information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI Biotekhnika UAAN.	
7.4. Emergency procedures	**/1/, /2/, /3/**	Detection, liquidation and registration of failures and emergencies at gas-distribution posts of OJSC Odesagas is carried out according to Safety rules of gas-supply systems of Ukraine.	OK
7.5. Data archiving	**/1/, /2/, /3/**	Data are stored on paper and in electronic form, and are archived in relative databased.	OK
7.6. Monitoring report	**/1/, /2/, /3/**	Calculations are provided in Monitoring Report.	OK
7.7. Internal audits and management review	**/1/, /2/, /3/**	All information collected and processed by working team is verified by the executive director of OJSC Odesagas and representatives of INI Biotekhinka UAAN. Please clarify what means a coefficient 0,95. Formulas in Appendix A and formulas in PDD of version 06 are different. Please provide units measure in Appendix A.	 CL1 CAR1 CL2

Periodic Verification Checklist Protocol Table 2: Data Management System/Controls

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
1. Defined organizational structure, responsibilities and competencies		
1.1. Position and roles	Full	OJSC Odesagas employees: Vitaliy Oleksandrovych Gerasymenko – the executive director of OJSC Odesagas Yakiv Lvovych Zatynaiko - the chief engineer of OJSC Odesagas Natalya Genadiyivna Orlova – VTV head of OJSC Odesagas Dmytro Moyseyovych Oks – head of VTV UEGG in Odessa of OJSC Odesagas Lyudmyla Andriyivna Kulbida - the LOP engineer of OJSC Odesagas Kateryna Sergiyivna Burova - the VTV engineer of OJSC

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
		Odesagas Sergiy Oleksandrovych Stryzhak – head of SEUG and DV UEGG in Odessa of OJSC Odesagas Designer's representatives: V.Ya. Khodorchuk – scientist, secretary of ITI Biotekhinka UAAN. V.I. Dorovskykh – head of laboratory of ITI Biotekhinka UAAN, candidate of technical sciences M.K. Tsvigovsky – deputy head of department of ITI Biotekhinka UAAN, candidate of technical sciences Public representatives: Andriy Oleksiyovych Shyshovsky – Head of permanent commission for realization of regulatory policy of Odessa municipal council Anatoliy Yuriyovych Ivanov – Deputy head of commission for fuel and power complex, energy saving and utility complex issues

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
1.2. Responsibilities	Full	Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya Genadiyivna Orlova) on the basis of received information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI Biotekhnika UAAN.
1.3. Competencies needed	Full	All employees of OJSC Odesagas involved into the project have required qualification level and working experience in the area of gas supply.
2. Conformance with monitoring plan		
2.1. Reporting procedures	Full	The monitoring plan is as per the registered PDD. The project uses Monitoring Methodology provided for by methodology AM0023 "Reduction of natural gas emissions at compressor and gas-distribution stations of main gas lines", version 03.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
2.2. Necessary Changes	Full	The project is implemented in accordance with the plan.
3. Application of GHG determination methods		
3.1. Methods used	Full	The reporting procedures reflect the monitoring plan content. The calculation of the emission reduction is correct.
3.2. Information/process flow	Full	All measurements of methane leaks are done by operative team equipped as necessary. A program for initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas is executed for each object (gas distribution post) of measurement. Sergiy Oleksandrovych Stryzhak and Lyudmyla Andriyivna Kulbida are responsible for collection of all information provided for by monitoring plan, and for making all necessary settlements. Archiving of all received information in the result of measurements and settlements is done under guidance of Kateryna Sergiyivna Burova. The head of working team (Nataliya Genadiyivna Orlova)

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
		on the basis of received information determines plan of measures under the Project and scope of resources required. Technical maintenance of the Project is carried out by Dmytro Moyseyovych Oks and Yevgen Viktorovych Kurkin. Control of data collection and processing and execution of Monitoring Report are done by ITI Biotekhnika UAAN.
3.3. Data transfer	Full	Data are stored on paper and in electronic form, and are archived in relative databased.
3.4. Data trails	Full	The necessary procedures have been defined in internal procedures and additional internal documents relevant for the determination of the all the parameters listed in the monitoring plan.
4. Identification and maintenance of key process parameters		
4.1. Identification of key parameters	Full	The critical parameters for the determination of GHG emissions are the parameters listed in section D of the approved PDD.
4.2. Calibration/maintenance	Full	The company maintains the elaborate calibration plan for each piece of the equipment. The audit team verified the status for all the equipment provided for by the JI project, and confirms them to be complying with the plan.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
5. GHG Calculations		
5.1. Use of estimates and default data	Full	All assumptions are given in section D of approved PDD.
5.2. Guidance on checks and reviews	Full	Monitoring plan is fully performed.
5.3. Internal validation and verification	Full	Monitoring procedure for JI Project includes the responsibility and frequency for carrying out internal audits. The audit team did verify all the parameters listed in monitoring report.
5.4. Data protection measures	Full	The necessary procedures for ensuring data security and preventing the unauthorized use were shown to verifiers during on-site verification.
5.5. IT systems	Повністю	IT systems is an electronic network of OJSC Odesagas, computers and hard data carriers.

Periodic Verification Protocol Table 3: GHG calculation procedures and management control testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
Potential reporting risks based on an assessment of the emission estimation procedures can be expected in the following fields of action: ➢ the calculation methods, ➢ raw data collection and sources of supporting documentation, ➢ reports/databases/information systems from which data is obtained. Key source data applicable to the project assessed are hereby: ➢ metering records (gas and power consumption per heat generated), ➢ process monitors (heat generation), ➢ operational logs (metering records), ➢ laboratory/analytical data (for energy content of fuels), ➢ accounting records, Appropriate calibration and maintenance of equipment resulting in high accuracy of data supplied should be in place. It is hereby needed to focus on those risks that impact the accuracy, completeness and consistency of the reported data. Risks are weakness in the GHG calculation systems and may include:	Regarding the potential reporting risks identified in the left column the following mitigation measures have been observed during the on-site mission: Understanding of responsibilities and roles. Collection of initial data and their transmission to databases. Metering equipment management system. Reporting, analysis and formal data approval by the management.	The areas of residual risks, I,e, the areas of potential risks without adequate means of control are used in a conservative manner in the reports according to the approach prescribed in the PDD.

➢ manual transfer of data/manual calculations, ➢ position of the metering equipment, ➢ unclear origins of data, ➢ accuracy due to technological limitations, • lack of appropriate data protection measures (for example, protected calculation cells in spreadsheets and/or password restrictions).		

Periodic Verification Protocol Table 4: Detailed audit testing of residual risk areas and random testing

Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
The issue remaining is the way the data obtained is used to calculate the emission reduction in a conservative manner according to the approach prescribed in the PDD.	There has been a complete check of data transferred from daily consumption and generation readings to the calculation tool. There was no error in such transfer. The correct installation of the metering equipment can be confirmed.	Having investigated the residual risks, the audit team comes to the following conclusion: Immediate action is not needed with respect to the current emission reduction calculation. Those corrections have been considered during the verification process, so no residual risk is open.

Verification Protocol Table 5: Resolution of Corrective Action and Clarification Requests

Report clarifications and corrective action requests	Ref. to checklist question in tables 2/3	Summary of project owner response	Verification conclusion
CL1: Please clarify what is means a coefficient 0,95.	Table 2, item 7.6	0,95= *1* - UR_i – confidence interval of measurement method (see. Table 1.2 of Monitoring Report). All necessary corrections were provided in Monitoring Report version 02.	Monitoring Report version 02, section D is checked. CL closed.
CL2: Please provide units measure in Appendix A.	Table 2, item 7.6	All necessary corrections were provided in Appendix A.	Appendix A is checked. CL closed.
CAR1: Formulas in Appendixes A, B, C and formulas in PDD of version 06 are different.	Table 2, item 7.6	All necessary corrections were provided in Appendix A.	Appendix A is checked. CL closed.

9 APPENDIX B: VERIFICATION TEAM

Flavio Gomes
Lead Verifier, Operational Manager
Flavio Gomes is an engineer in chemistry and safety, diploma UNICAMP – University of Campinas State, Master of Construction Engineering Science (improvement of sanitary conditions). He spent four years in RIPASA, a pulp-and-paper mill as an Environmental Engineer. Since 2006 – Global Climate Change Manager. From 1997 – chief consultant of Bureau Veritas Consulting for the management systems of environment, quality, hygiene and occupational safety, and social liability. He is also a project verifier under Clean Development Mechanism, and an auditor of Social/Environmental reports on behalf of Bureau Veritas Certification. Flavio is currently obtaining a degree of Ph.D. in the field of power management of Imperial College – London.

Kateryna Zinevych, M.Sci. (environmental science)
Verifier
Bureau Veritas Ukraine Health, Safety and Environment Project Manager

Kateryna Zinevych has graduated from National University of Kyiv-Mohyla Academy with the Master Degree in Environmental Science. She has experience at working in a professional position (analytics) involving the exercise of judgment, problem solving and communication with other professional and managerial personnel as well as customers and other interested parties at analytical centre “Dergzovnishinform” and “Burea Veritas Ukraine” LLC. She has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. She has successfully completed Climate Change Verifier Training Course and she participated as verifier in the determination/verification of 26 JI projects.

Oleg Skoblyk, Specialist (Power Management)
Climate Change Verifier
Bureau Veritas Ukraine HSE Department project manager.
Oleg Skoblyk has graduated from National Technical University of Ukraine ‘Kyiv Polytechnic University” with specialty Power Management. He has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. Oleg Skoblyk has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 9 JI projects.

Report checked by:
Ivan G. Sokolov, Dr. Sci. (biology, microbiology)

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

Acting CEO Bureau Veritas Black Sea District

He has over 25 years of experience in Research Institute in the field of biochemistry, biotechnology, and microbiology. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered), Quality Management System (IRCA registered), Occupational Health and Safety Management System, and Food Safety Management System. He performed over 140 audits since 1999. Also he is Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and Lead Tutor of the IRCA registered ISO 9000 QMS Lead Auditor Training Course. He is Lead Tutor of the Clean Development Mechanism /Joint Implementation Lead Verifier Training Course and he was involved in the determination/verification over 60 JI/CDM projects.

10 APPENDIX C: VERIFIED DOCUMENTS

/1/. Contract with ITI Biotekhnika UAAN.
/2/. Manual to gas analyzer EX-TEC® SR5.
/3/. An Order on Working Team creation
/4/. Passport 10ov CGDP 36 K. Bugaz, Stepova str.
/5/. Passport 14 Belyaevka GDP 8 Maiaky city, Kotovskogo str.
/6/. Passport 07 CGDP 013 Chervonoznamenka
/7/. Passport 14 CGDP 016 Kotovka village, 70-a, Lenina str.
/8/. Summarized statement of reconstructions of gas-distribution posts of OJSC Odesagas performed in 2009
/9/. Program of initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas 10ov CGDP 36 K. Bugaz, Stepova str.
/10/. Program of initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas 14 Belyaevka GDP 8 Maiaky city, Kotovskogo str.
/11/. Program of initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas 07 CGDP 013 Chervonoznamenka
/12/. Program of initial monitoring measurements for shut-off stations and natural gas networks of OJSC Odesagas 14 CGDP 016 Kotovka village, 70-a, Lenina str.
/13/. Register of equipment of GRP OJSC Odesagas
/14/. Recommendations on monitoring of methane leaks at gas distribution posts of OJSC Odesagas
/15/. Inspection certificate of gas analyzer EX-TEC® SR5.
/16/. Photo of gas analyzer EX-TEC® SR5.
/17/. Photos of a plant for measurement of methane leaks volumes
/18/. Photo 10ov CGDP 36 K. Bugaz, Stepova str.
/19/. Photo 14 Belyaevka GDP 8 Maiaky city, Kotovskogo str.
/20/. Photo 07 CGDP 013 Chervonoznamenka
/21/. Photo 14 CGDP 016 Kotovka village, 70-a, Lenina str.