



VERIFICATION REPORT VEMA S.A.

VERIFICATION OF THE
DEVELOPMENT AND IMPROVEMENT OF WATER SUPPLY
SYSTEM, DRAINAGE SYSTEM AND WASTEWATER TREATMENT
OF CITY COMMUNAL ENTERPRISE “MYKOLAYIVVODOKANAL”

THE SECOND PERIODIC
FOR THE PERIOD OF 01/01/2008 – 31/12/2011

REPORT No. UKRAINE-VER/0497/2012

REVISION No. 02

BUREAU VERITAS CERTIFICATION


**BUREAU
VERITAS**

VERIFICATION REPORT

Date of first issue: 17/05/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: VEMA S.A.	Client ref.: Fabian Knodel

Summary:
Bureau Veritas Certification has made the 2nd periodic verification for the period from January 1, 2008 to December 31, 2011 of the project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal", project of VEMA S.A, located in Mykolaiv city, Ukraine, and applying JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria (but for the crediting period) refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

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

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

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated accurately and without material errors, omissions, or misstatements, and the ERUs issued totalize 266 846 tonnes of CO₂ equivalent for the monitoring period from 01/01/2008 to 31/12/2011.

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

Report No.: UKRAINE-ver/0497/2012	Subject Group: JI
Project title: "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal"	
Work carried out by: Oleg Skoblyk - Team Leader, Climate Change Lead Verifier Kateryna Zinevych - Team Member, Climate Change Verifier	
Work reviewed by: Ivan Sokolov – Internal technical reviewer	
Work approved by: Ivan Sokolov – Climate Change Operational Manager	
Date of this revision: 21/05/2012	Rev. No.: 02
Number of pages: 39	

 No distribution without permission from the Client or responsible organizational unit

 Limited distribution

 Unrestricted distribution



Table of Contents		Page
1	INTRODUCTION	4
1.1	Objective	4
1.2	Scope	4
1.3	Verification Team	4
2	METHODOLOGY	5
2.1	Review of Documents	5
2.2	Follow-up Interviews	5
2.3	Resolution of Clarification, Corrective and Forward Action Requests	6
3	VERIFICATION CONCLUSIONS	6
3.1	Remaining issues and FARs from previous verifications	7
3.2	Project approval by Parties involved (90-91)	7
3.3	Project implementation (92-93)	7
3.4	Compliance of the monitoring plan with the monitoring methodology (94-98)	10
3.5	Revision of monitoring plan (99-100)	11
3.6	Data management (101)	11
3.7	Verification regarding programmes of activities (102-110)	13
4	VERIFICATION OPINION.....	13
5	REFERENCES	16
	APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL.....	26



1 INTRODUCTION

VEMA S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise “Mykolayivvodokanal” (hereafter called “the project”) at Mykolaiv city, Ukraine.

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

The verification covers the period from January 1, 2008 to December 31, 2011.

1.1 Objective

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

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

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

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, the project’s baseline study, monitoring plan and monitoring report, and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

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

1.3 Verification Team

The verification team consists of the following personnel:

Oleg Skoblyk

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Kateryna Zinevych

Bureau Veritas Certification Team Member, Climate Change Verifier

This verification report was reviewed by:



Ivan Sokolov
Bureau Veritas Certification Internal Technical Reviewer

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

The Monitoring Report (MR) submitted by VEMA S.A. and additional background documents related to the project design, baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology, Determination Report of the project issued by Bureau Veritas Certification Holding SAS No. UKRAINE-det/0477/2012, version 01 dated 06/04/2012, Guidance on criteria for baseline setting and monitoring, Host party criteria, the Kyoto Protocol, Clarifications on Verification Requirements to be checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report for the period from 01/01/2008 to 31/12/2011, version 01 as of February 17, 2012 and version 02 as of May 18, 2012 and the project as described in the determined PDD.

2.2 Follow-up Interviews

On 18/04/2012 Bureau Veritas Certification verification team visited the project implementation site (CCE “Mykolayivvodokanal”) and performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of CCE “Mykolayivvodokanal” and VEMA S.A. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
CCE “Mykolayivvodokanal”	<ul style="list-style-type: none"> ➤ Organizational structure ➤ Responsibilities and authorities



	<ul style="list-style-type: none"> ➤ Roles and responsibilities for data collection and processing ➤ Installation of equipment ➤ Data logging, archiving and reporting ➤ Metering equipment control ➤ Record keeping system, database ➤ IT management ➤ Training of personnel ➤ Quality management procedures and technologies ➤ Internal audits and check-ups
Consultant: VEMA S.A.	<ul style="list-style-type: none"> ➤ Baseline methodology ➤ Monitoring plan ➤ Monitoring report ➤ Deviations from the PDD

2.3 Resolution of Clarification, Corrective and Forward Action Requests

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

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

- (a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- (b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;
- (c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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

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

3 VERIFICATION CONCLUSIONS

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



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

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 11 Corrective Action Requests and 4 Clarification Requests.

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

3.1 Remaining issues and FARs from previous verifications

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

CAR 01:

The project has no approval from the Host party.

Response

Letter of Approval No. 1272/23/7 dated 17/05/2012 was issued by the State Environmental Investment Agency of Ukraine.

3.2 Project approval by Parties involved (90-91)

The project obtained approval by the Host party (Ukraine) - Letter of Approval No 1272/23/7 issued by the State Environmental Investment Agency of Ukraine dated 17/05/2012, and written project approval by the party – buyer of the emission reduction units (Switzerland) - Letter of Approval No. J294-0485 issued by the Federal Office for the Environment (FOEN) of Switzerland dated 14/05/2012.

The abovementioned written approval is unconditional.

The identified areas of concern as to the project approval by the parties involved, project participants responses and BVC's conclusions are described in Appendix A to this report (refer to CAR 01, CAR 02).

3.3 Project implementation (92-93)

The main purpose of the project is reduction of electric energy consumption by modernization and development of the centralized water supply, drainage and wastewater treatment system. This includes replacement and modernization of pumps, water distribution and drainage networks, installation of frequency regulators, optimization of the technological process of water pumping, introduction of mini hydroelectric power plant in the city of Mykolaiv. The implementation of the abovementioned technologies will allow for reduction of greenhouse gas (CO₂) emissions and promote sustainable development of the city.

The project measures include:

- modernization of pumping equipment;

VERIFICATION REPORT

- replacement of pumping equipment;
- optimization of the technological process of water pumping, i.e. change of operation modes of pumping plants;
- replacement of water supply and drainage networks;
- replacement of shut-off and control valves;
- installation of a new group of metering devices;
- modernization of water treatment technology;
- installation of frequency regulators;
- modernization of aerotanks;
- implementation of a mini hydroelectric power plant (MHEPP).

The project activity started at the end of 2005 and consisted in the first measures on optimization of the technological process of water pumping. Because of the fact that implementation of measures under the project commenced in 2005, in view of conservative approach the emission reductions generated due to these measures were not accounted in the project.

Measures that were implemented in the period of January 1, 2008 – December 31, 2011 are provided in Table 2 below:

Table 2 Project implementation progress status in the period of 01/01/2008 – 31/12/2011

No.	Project measures	Number of units of works performed for the period of 01/01/2008 – 31/12/2011	Starting date of project measures implementation	Expected date of completion of project implementation measures
1	Modernization of pumping equipment	2 units	01/01/2008	31/12/2011
2	Replacement of pumping equipment	31 units	01/01/2008	31/12/2011
3	Replacement of shut-off and control valves	115 units	01/01/2008	31/12/2011
4	Replacement of water supply and drainage networks	18912,35/6426,67 r.m.	01/01/2008	31/12/2011
5	Installation of a new group of metering	12 units	01/01/2008	31/12/2011



 VERIFICATION REPORT

	devices			
6	Installation of frequency regulators	11 units	01/01/2008	31/12/2011

The project measures are mainly implemented according to the implementation schedule presented in the determined PDD version 03.

Detailed information about implemented measures and installed equipment during the reporting period of January 1, 2008 – December 31, 2011 at departments and divisions is provided in Annex 4 to the Monitoring report.

The starting date of the crediting period did not change and remains the date of the first generated emission reduction units, namely: January 01, 2006.

The Monitoring System is in place and operational.

The monitoring equipment such as electricity meters, water meters are installed and comply with the industrial standards of Ukraine. All monitoring equipment is covered by the detailed verification (calibration) plan and is verified with periodicity, established by its manufacturer.

The project implementation doesn't provide for any negative impacts on the environment. The only impact on the environment is dismantled equipment, which will be further stored at the company's warehouses.

CCE "Mykolayivvodokanal" has all necessary reports, permissions, limits and licenses required by the Ukrainian legislation, including:

- permit for "Special water use";
- Form 2-TP (water industry), Report on water use;
- Form 11 MTP, Report on the results of fuel, heat energy and electric energy use.

Implementation of this project allows to improve servicing of water consumers. Experience of CCE "Mykolayivvodokanal" employees and adherence to the norms "On drinking water and drinking water supply" allow to minimize the occurrence of emergency situations in the course of this project implementation.

The identified areas of concern as to the project implementation, project participants responses and BVC's conclusions are described in Appendix A to this report (refer to CAR 03, CAR 04, CL 01).



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

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

For calculating the emission reductions, key factors such as volume of water to be supplied to the customers, applicable tariffs for water supply and drainage, state policies in potable water and potable water supply sector, experience in implementation of measures planned under the project, existing practice in Ukraine in this sphere, financial costs and experience as well as sectoral reform policy in the water supply sphere and legislation influencing the baseline emissions and the activity level under the project and the project emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions such as appropriately calibrated metering equipment, the study of carbon dioxide emission factors are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice. Carbon dioxide emission factors (EF) for consumption of electricity from the nation power grid of Ukraine were set in accordance with:

- Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2008" No. 62 dated 15/04/2011;
- Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2009" No. 63 dated 15/04/2011;
- Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2010" No. 43 dated 28/03/2011;
- Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2011" No. 75 dated 12/05/2011;

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

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

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants responses and BVC's conclusions are described in Appendix A to this report (refer to CAR 05, CAR 06, CAR 07, CL 02, CL 03).



3.5 Revision of monitoring plan (99-100)

Not applicable.

3.6 Data management (101)

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

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

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

According to the effective Law "On metrology and metrological activity" all metering equipment in Ukraine shall conform to stated requirements of corresponding standards and is subject to periodic calibration. Metering equipment used for monitoring is subject to periodic state verification. Calibration of CCE "Mykolayivvodokanal" metering equipment is conducted according to the national standards pursuant to the Certificate No. 071516 dated October 10, 2006 On the state metrological certification of the metrology CCE "Mykolayivvodokanal" department "Water metering workshop".

The project complies with legal requirements to the calibration and verification.

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

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

The most objective and cumulative factor demonstrating whether the emission reductions actually occurred, is electricity saving. It may be determined as the difference between baseline electricity consumption and electricity consumption after the project implementation. If pumps consume electricity at the project level, then all other indicators, such as efficiency of new pumps, aeration system, and loss of water in water distribution and drainage networks, are corresponding.

The monitoring procedure provides for the following:

- 1) Measures for control of electric energy, consumed by CCE "Mykolayivvodokanal"
- 2) Measures for control of water supplied to the consumers at CCE "Mykolayivvodokanal"
- 3) Measures for control of accounting of wastewater drained from consumers at CCE "Mykolayivvodokanal"
- 4) Measures for control of accounting of wastewater drained by wastewater treatment facilities (HWWTF, VWWTF) at CCE "Mykolayivvodokanal"
- 5) Measure for control of electric energy to be generated by CCE "Mykolayivvodokanal" after the installation of the mini hydroelectric power plant.

Data and parameters that are subject to periodic monitoring according to the monitoring plan provided in the PDD version 03 as well as a list of constant values that are used to calculated emission reductions are given in Section B.2.1 of the Monitoring Report and Supporting document (Excel file) Annex 3 Calculation of GHG emission reductions due to electricity saving in water supply, drainage and wastewater treatment systems of CCE "Mykolayivvodokanal".

Based on the obtained data that are subject to metering and control CCE "Mykolayivvodokanal" prepares the following documents:

- Electricity consumption report under the form 11-MTP, that is signed by CCE “Mykolayivvodokanal” director and submitted to Mykolaiv regional state administration;
- Report 2-TP (water industry) is made on the basis of monthly statements and submitted every three, six and twelve months to the Mykolaiv Administration of Water Resources. Payment for water transferred to consumers is made according to these reports.

CCE “Mykolayivvodokanal” collects and keeps the data relating to electric energy consumed and acquired water for water-supply in the forms of electric energy and acquired water bills.

Monitoring data collection at CCE “Mykolayivvodokanal” is carried out as follows:

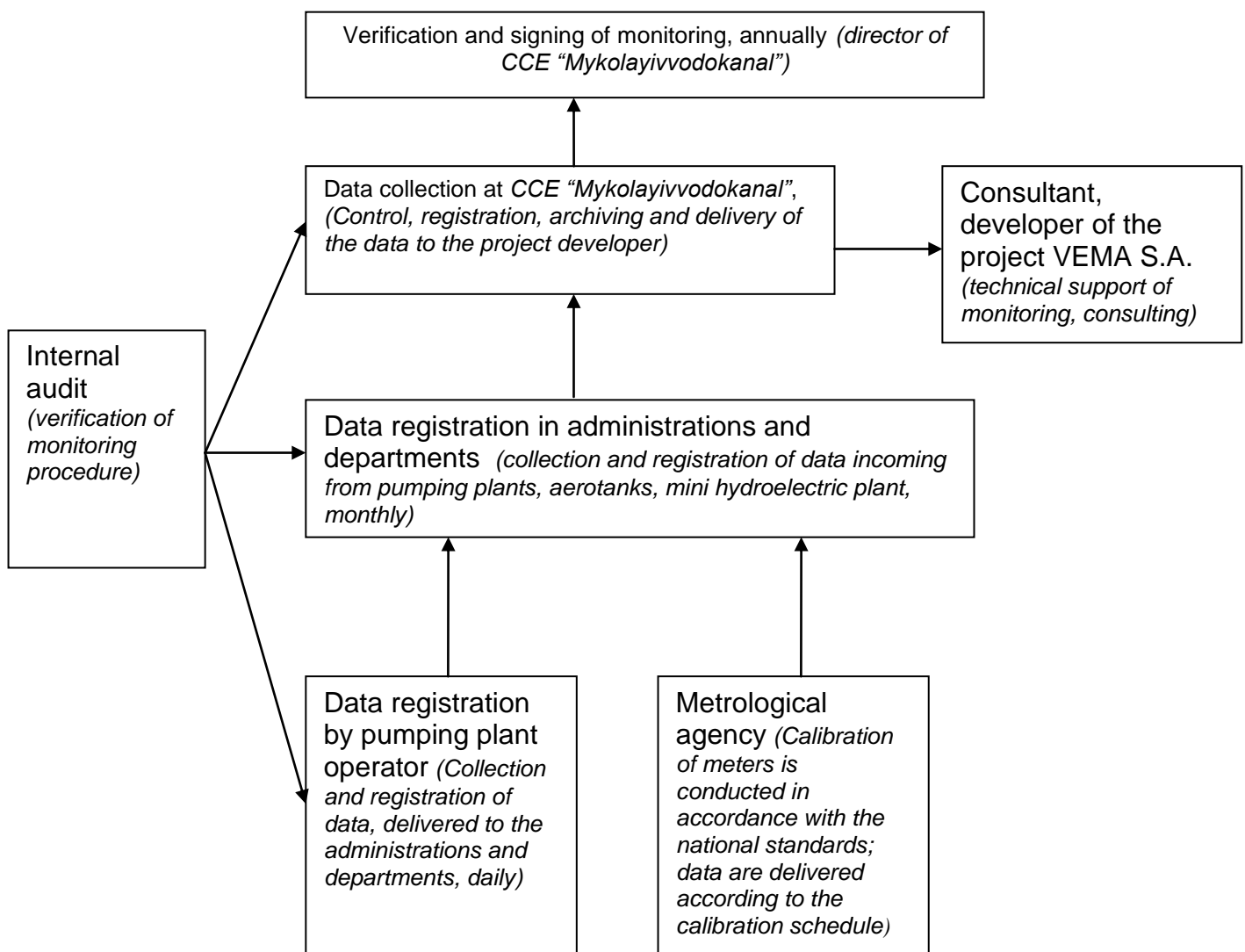


Figure 1 Structure of monitoring data collection



All necessary information for monitoring of GHGs emission reductions is stored in paper or/and electronic formats and will be kept till the end of the crediting period and for two years after the last operation with ERUs from the project.

The Monitoring Report version 02 provides sufficient information on the assigned roles, responsibilities and authorities for implementation and maintenance of monitoring procedures including data management. The verification team confirms effectiveness of the existing management and operational systems and finds them eligible for reliable project monitoring.

The identified areas of concern as to the data management, project participants responses and BVC's conclusions are described in Appendix A to this report (refer to CAR 08, CAR 09, CAR 10, CAR 11, CL 04).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has made the 2nd periodic verification for the period from January 1, 2008 to December 31, 2011 of the project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" in Ukraine, which applies JI specific approach. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the monitoring report against the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of 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 indicated in the final PDD version 03. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 02 for the reporting period from January 1, 2008 to December 31, 2011. 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.



VERIFICATION REPORT

Emission reduction achieved by the project for the period from 01/01/2008 to 31/12/2011 do not differ significantly from the amount predicted for the same period in the determined PDD. See emission reductions predicted in the determined PDD version 03 and actual emission reductions stated in the MR version 02 in Table 3 of this Report.

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

Period	Estimated GHG reductions stated in the determined PDD, t CO _{2e}	Actual GHG emission reductions stated in the Monitoring report, t CO _{2e}
2008	62 218	60 448
2009	63 508	63 508
2010	71 352	71 352
2011	71 352	71 498

Exact match of data relating to greenhouse gas emission reductions of the project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" in 2009 - 2010 in the determined PDD and the MR is explained by the provision of accurate conservative data by CCE "Mykolayivvodokanal" at the stage of PDD development that coincide with those data that were provided for the development of the MR.

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 01/01/2008 to 31/12/2011

In period from 01/01/2008 to 31/12/2008

Baseline emissions	: 123 541	tonnes of CO ₂ equivalent.
Project emissions	: 63 053	tonnes of CO ₂ equivalent.
Emission Reductions	: 60 488	tonnes of CO ₂ equivalent.

In period from 01/01/2009 to 31/12/2009

Baseline emissions	: 123 607	tonnes of CO ₂ equivalent.
Project emissions	: 60 099	tonnes of CO ₂ equivalent.
Emission Reductions	: 63 508	tonnes of CO ₂ equivalent.

In period from 01/01/2010 to 31/12/2010

Baseline emissions	: 129 848	tonnes of CO ₂ equivalent.
Project emissions	: 58 496	tonnes of CO ₂ equivalent.
Emission Reductions	: 71 352	tonnes of CO ₂ equivalent.



VERIFICATION REPORT

In period from 01/01/2011 to 31/12/2011

Baseline emissions	: 132 217	tonnes of CO ₂ equivalent.
Project emissions	: 60 719	tonnes of CO ₂ equivalent.
Emission Reductions	: 71 498	tonnes of CO ₂ equivalent.

Total amount in period from 01/01/2008 to 31/12/2011

Baseline emissions	: 509 214	tonnes of CO ₂ equivalent.
Project emissions	: 242 368	tonnes of CO ₂ equivalent.
Emission Reductions	: 266 846	tonnes of CO ₂ equivalent.



5 REFERENCES

Category 1 Documents:

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

/1/	Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011, version 01, dated February 17, 2012
/2/	Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011, version 02, dated May 18, 2012
/3/	Annex 1 to the Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011 "Monitoring Plan Parameters"
/4/	Annex 2 Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011 "Project and monitoring equipment" (Excel file)
/5/	Annex 3 Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011 "Calculation of GHG emission reductions due to electric energy saving in the water supply, drainage and wastewater treatment systems of CCE "Mykolayivvodokanal" (Excel file)
/6/	Annex 4 Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011 "Measures that were implemented under the project" (Excel file)
/7/	Annex 5 Monitoring Report of JI project "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" for the period from 01/01/2008 to 31/12/2011 "Monitoring values of the parameters used for GHG emission calculation" (Excel file)
/8/	PDD "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal", version 03 dated 02/04/2012
/9/	Determination Report issued by Bureau Veritas Certification Holding SAS No. UKRAINE-det/0477/2012 "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal", version 01 dated 06/04/2012
/10/	Letter of Approval of the joint implementation project "Development and



	improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" No. 1272/23/7 issued by the State Environmental Investment Agency of Ukraine dated 17/05/2012.
/11/	Letter of Approval of the project under article 6 of the Kyoto protocol (JI) "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal" No. J294-0485 issued by the Federal Department on the Environment (FOEN) of Switzerland dated 14/05/2012

Category 2 Documents:

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

/1/	Note of cost of construction work performed in March 2011
/2/	Note of cost of construction work performed in 2011
/3/	Note of cost of construction work performed in October 2011
/4/	Note of cost of construction work performed in February 2010
/5/	Note of cost of construction work performed in April 2010
/6/	Note of cost of construction work performed in July 2010
/7/	Note of cost of construction work performed in March 2010
/8/	Note of cost of construction work performed in March-2 2010
/9/	Note of cost of construction work performed in April 2010
/10/	Note of cost of construction work performed in July 2010
/11/	Note of cost of construction work performed in August 2010
/12/	Note of cost of construction work performed in 2010
/13/	Note of cost of sub-contract work performed in July 2009
/14/	Note of cost of sub-contract work performed in August 2009
/15/	Note of cost of sub-contract work performed in July 2009
/16/	Note of cost of sub-contract work performed in 2009
/17/	Note of cost of sub-contract work performed in December 2009
/18/	Note of cost of sub-contract work performed in August 2009



VERIFICATION REPORT

/19/	Note of cost of sub-contract work performed in June 2009
/20/	Note of cost of sub-contract work performed in July 2009
/21/	Note of cost of sub-contract work performed in December 2009
/22/	Note of cost of sub-contract work performed in October 2008
/23/	Note of cost of sub-contract work performed in November 2008
/24/	Note of cost of sub-contract work performed in October 2008
/25/	Note of cost of sub-contract work performed in September 2008
/26/	Note of cost of sub-contract work performed in August 2008
/27/	Note of cost of sub-contract work performed in June 2008
/28/	Note of water intake at CCE "Mykolayivvodokanal" in 2005-2010
/29/	Report on the use of fuel, heat and electric energy in January 2011
/30/	Bill for electric energy consumption № 44/80/12 dated 01/12/2008
/31/	Bill for electric energy consumption № 44/85/12 dated 01/12/2008
/32/	Bill for electric energy consumption № 44/80/12/1 dated 01/12/2008
/33/	Notice on termination of electric energy supplying № 44/85/12 dated 01/12/2008
/34/	Notice on termination of electric energy supplying № 44/80/12/1 dated 01/12/2008
/35/	Certificate № 50*1632 on delivery and acceptance of works
/36/	Note of cost of construction works performed in December 2009 (replacement of water pipeline with 300 mm diameter at Pryhorodna Str., Mykolaiv city)
/37/	Note of cost of sub-contract works performed in October 2008 (repair of discharge header with 630 mm diameter from DPP № 17)
/38/	Note of cost of sub-contract works performed in November 2008 (repair of the existing yard track external drainage system at address Mykolaiv city, 20, Pushkinska Str.
/39/	Note of cost of sub-contract works performed in October 2008 (replacement of drainage pipeline section with 600 mm diameter в auto-cooperative society "Metalurh")
/40/	Note of cost of sub-contract works performed in March 2011 (repair of drainage



VERIFICATION REPORT

	collector at 205, Chkalova Str. In Mykolaiv city)
/41/	Note of cost of sub-contract works performed in February 2010 (replacement of water pipeline with 300 mm diameter at Pryhorodna Str., Mykolaiv city)
/42/	Bill for electric energy consumption № 20.1 dated 14/11/2008
/43/	Bill № 59381304 dated 30/11/2008
/44/	Report on fuel, heat and electric energy consumption in January-December 2010
/45/	Report on fuel, heat and electric energy consumption in January-December 2008
/46/	Bill for electric energy consumption № 44/80/06 dated 02/06/2008
/47/	Bill for electric energy consumption № 44/80/6/1 dated 02/06/2008
/48/	Notice on termination of electric energy supplying № 44/80/6/1 dated 02/06/2008
/49/	Bill for electric energy consumption № 44/0/85/6 dated 02/06/2008
/50/	Notice on termination of electric energy supply № 44/0/85/6 dated 02/06/2008
/51/	Bill for electric energy consumption № 20.1 dated 15/05/2008
/52/	Bill for electric energy consumption № 30471304 dated 31/05/2008
/53/	Bill for electric energy consumption 2618 dated 22/05/2008
/54/	Bill for electric energy consumption № 44/80/2 dated 03/03/2008
/55/	Notice on termination of electric energy supply № 44/80/2 dated 03/03/2008
/56/	Bill for electric energy consumption № 44/80
/57/	Notice on termination of electric energy supplying № 44/80/
/58/	Bill for electric energy consumption № 44/80/2/1 dated 29/02/2008
/59/	Notice on termination of electric energy supply № 44/80/2/1 dated 29/02/2008
/60/	Bill for electric energy consumption № 44/0/85/3 dated 03/03/2008
/61/	Notice on termination of electric energy supply № 44/0/85/3 dated 03/03/2008
/62/	Certificate of services provided (works performed) № 10731304 dated 29/02/2008



VERIFICATION REPORT

/63/	Bill for electric energy consumption № 2618 dated 22/02/2008
/64/	Bill for electric energy consumption № 20.1 dated 15/02/2008
/65/	Bill for electric energy consumption № 46/6/2 dated 01/02/2011, issued 02/02/2011
/66/ к	Bill for electric energy consumption № 03511304 dated 31/01/2011
/67/	Bill for electric energy consumption № 2618 dated 28/01/2011
/68/	Bill for electric energy consumption 20.1 dated 17/01/2011
/69/	Bill for electric energy consumption № 44/80/8 dated 03/08/2009
/70/	Bill for electric energy consumption № 44/0/85/8 dated 03/08/2009
/71/	Bill for electric energy consumption № 38/6/8 dated 03/08/2009
/72/	Bill for electric energy consumption 20.1 dated 15/07/2009
/73/	Bill for electric energy consumption № 2618 dated 28/07/2009
/74/	Bill for electric energy consumption № 37271304 dated 31/07/2009
/75/	Bill for electric energy consumption № 46/6/7 dated 01/08/2010 issued 03/08/2010
/76/	Bill for electric energy consumption 20.1 dated 15/07/2010
/77/	Bill for electric energy consumption № 2618 dated 28/07/2010
/78/	Bill for electric energy consumption № 44671304 dated 31/07/2010
/79/	Bill for electric energy consumption № 44/80/4/1 dated 05/05/2010
/80/	Bill for electric energy consumption № 44/80/4/1 dated 05/05/2010
/81/	Bill for electric energy consumption № 38/6/4/1 dated 30/04/2010
/82/	Bill for electric energy consumption № 44/80/4
/83/	Bill for electric energy consumption № 44/80/4/1
/84/	Bill for electric energy consumption № 44/0/85/4
/85/	Bill for electric energy consumption № 38/6/4 dated 01/04/2010
/86/	Bill for electric energy consumption № 38/6/4/1 dated 01/04/2010
/87/	Bill for electric energy consumption № 16571304 dated 31/03/2010



VERIFICATION REPORT

/88/	Bill for electric energy consumption 2618 dated 29/03/2010
/89/	Bill for electric energy consumption № 20.1 dated 15/03/2010
/90/	Bill for electric energy consumption № 44/80/3 dated 02/04/2010
/91/	Bill for electric energy consumption № 44/80/3/1 dated 02/04/2010
/92/	Bill for electric energy consumption № 44/80/2 dated 02/03/2010
/93/	Bill for electric energy consumption № 44/80/2/1 dated 02/03/2010
/94/	Bill for electric energy consumption № 44/80/3
/95/	Bill for electric energy consumption № 44/0/85/3
/96/	Bill for electric energy consumption № 44/80/3/1
/97/	Bill for electric energy consumption № 38/6/3 dated 01/03/2010
/98/	Bill for electric energy consumption № 38/6/3/1 dated 01/03/2010
/99/	Bill for electric energy consumption № 20.1 dated 15/02/2010
/100/	Bill for electric energy consumption 2618 dated 25/02/2010
/101/	Bill for electric energy consumption № 08281304 dated 28/02/2010
/102/	Bill for electric energy consumption № 44/80/2/1
/103/	Notice on termination of electric energy supply № 44/80/2/1 on 01/02/2010
/104/	Bill for electric energy consumption № 44/80/2/1 dated 01/02/2010
/105/	Bill for electric energy consumption № 38/6/2 dated 01/02/2010
/106/	Bill for electric energy consumption № 46/6/5 dated 31/05/2011 issued 01/06/2011
/107/	Bill for electric energy consumption № 26151304 dated 31/05/2011
/108/	Bill for electric energy consumption № 2618 dated 27/05/2011
/109/	Bill for electric energy consumption № 20.1 dated 16/05/2011
/110/	Bill for electric energy consumption No. 46/6/5 issued 04/05/2011
/111/	Bill for electric energy consumption № 20.1 dated 15/04/2011
/112/	Bill for electric energy consumption № 2618 dated 27/04/2011
/113/	Bill for electric energy consumption № 22241304 dated 30/04/2011



 VERIFICATION REPORT

/114/	Bill for electric energy consumption № 44/80/2/1 dated 01/02/2008
/115/	Bill for electric energy consumption № 44/80/2/2 dated 01/02/2008
/116/	Bill for electric energy consumption № 20.1 dated 15/01/2008
/117/	Bill for electric energy consumption № 2618 dated 22/01/2008
/118/	Bill for electric energy consumption № 02271304 dated 31/01/2008
/119/	A copy of electric energy consumption accounting at NSK in 2008
/120/	A copy of electric energy consumption accounting at NSK in 2009
/121/	A copy of electric energy consumption accounting at NSK in 2010
/122/	A copy of electric energy consumption accounting at NSK in 2011
/123/	Copy of logbook for data on pumped wastewater. The logbook is filled in at wastewater treatment facilities (per day, month) 2011
/124/	The act of replacement of accounting devices in networks 0,4 KV dated 07/2008
/125/	Certificate of replacement of accounting devices in networks 0,4 KV dated 09/07/2009
/126/	Certificate on energy consumption at Inhuletskyi water pipeline in December 2008
/127/	Certificate on energy consumption at section HOSK (rp-104) in December 2008
/128/	Certificate of replacement of accounting devices in networks 0,4 KV dated 14/07/2009
/129/	Certificate on energy consumption section HOSK (rp-104) in May 2008
/130/	Certificate on energy consumption at Inhuletskyi water pipeline in December 2008
/131/	Certificate on energy consumption at Inhuletskyi water pipeline in December 2008
/132/	Certificate on energy consumption section HOSK (rp-104) in March 2008
/133/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate ETsV 6-10-110) dated 23/03/2009
/134/	Fixed assets delivery and acceptance (internal displacement) certificate (electric pump HNOM 100*25) dated 23/12/2009
/135/	Fixed assets delivery and acceptance (internal displacement) certificate (pump



 VERIFICATION REPORT

	HRAT 1800/67) dated 30/04/2009
/136/	Fixed assets delivery and acceptance (internal displacement) certificate (electric pump HNOM 100*25) dated 23/12/2009
/137/	Fixed assets delivery and acceptance (internal displacement) certificate (electric pump SV 302 H15MQ-50m ³ /h DPP Varvarovka) dated 22/09/2010
/138/	Fixed assets delivery and acceptance (internal displacement) certificate (pump HNOM 100/25) dated 31/01/2011
/139/	Fixed assets delivery and acceptance (internal displacement) certificate (pump SD 80/32 with electric engine 18,5 kW/1500 rev/min., faecal) dated 31/01/2010
/140/	Fixed assets delivery and acceptance (internal displacement) certificate (pump WILONP65E132/222-3-400) dated 31/01/2010
/141/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate 2sm. with electric engine 1500rev/min) dated 02/04/2008
/142/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate 2sm. with electric engine 1500rev/min) dated 22/02/2008
/143/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate 2sm.-100-65-200/2 with electric engine 37 kV) dated 28/02/2010
/144/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate 2sm-100-65-200/2 with electric engine 37 kV/3000 rev/min.) dated 31/03/2009
/145/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 8-25-100) dated 02/09/2011
/146/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 6-25-125) dated 30/04/2011
/147/	Fixed assets delivery and acceptance (internal displacement) certificate (pump HNOM 10-10) dated 02/11/2008
/148/	Fixed assets delivery and acceptance (internal displacement) certificate (pump 6300/27) dated 31/03/2009
/149/	Fixed assets delivery and acceptance (internal displacement) certificate (pump GRUNDFOSCR-10-04) dated 30/07/2008
/150/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate 6-63-125) dated 30/06/2010
/151/	Fixed assets delivery and acceptance (internal displacement) certificate (pump



VERIFICATION REPORT

	ETsV 6-6,3-125) dated 30/06/2010
/152/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 6-6,3-125) dated 30/09/2010
/153/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 6-6,3-125) dated 31/05/2011
/154/	Fixed assets delivery and acceptance (internal displacement) certificate (pump WQD 15-15) dated 31/03/2010
/155/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate ETsV 6-6,5-120) dated 23/03/2009
/156/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate TWU4-0823-DM-C) dated 29/07/2011
/157/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate ETsV 6-6,5-120) dated 31/03/2009
/158/	Fixed assets delivery and acceptance (internal displacement) certificate (pump D-6300-27/NA №5/) dated 30/04/2010
/159/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 8-1680 №29) dated 24/12/2008
/160/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ETsV 5-6,5-95) dated 30/12/2008
/161/	Fixed assets delivery and acceptance (internal displacement) certificate (pumping aggregate WU4-0214-DM-C) dated 28/02/2010
/162/	Fixed assets delivery and acceptance (internal displacement) certificate (pump KVC3/4T) dated 02/02/2008
/163/	Fixed assets delivery and acceptance (internal displacement) certificate (pump 4SR4/18) dated 30/09/2011
/164/	Fixed assets delivery and acceptance (internal displacement) certificate (pump ELQB 6-6,3-125) dated 30/06/2010
/165/	Fixed assets delivery and acceptance (internal displacement) certificate (pump CK 90-3-2) dated 30/04/2011

Persons interviewed:

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



 VERIFICATION REPORT

	Name	Organization	Position
/1/	Larysa Tantsiura	CCE "Mykolayivvodokanal"	Head of water supply service
/2/	Tamara Shapoval	CCE "Mykolayivvodokanal"	Head of production and technical department
/3/	Oleksii Ababilov	CCE "Mykolayivvodokanal"	Chief energy engineer
/4/	Oleksandr Zubov	CCE "Mykolayivvodokanal"	Chief mechanical engineer
/5/	Andrii Misiura	CCE "Mykolayivvodokanal"	Deputy director
/6/	Oleksandr Deli	CCE "Mykolayivvodokanal"	Chief engineer
/7/	Ivan Pienov	CCE "Mykolayivvodokanal"	Head of resource and technical supplies department
/8/	Mykola Moiseenko	CCE "Mykolayivvodokanal"	Head of drainage network
/9/	Iryna Naumenko	"CEP" LLC	Consultant of VEMA S.A.



VERIFICATION REPORT

APPENDIX A: VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

JI PROJECT VERIFICATION PROTOCOL

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	Has the 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?	The project has been approved by both Host Party (Ukraine) and the party involved (Switzerland). The Letters of Approval were issued by DFPs of Parties involved. Both Letters of Approval were available as of the start of the first verification. CAR 01. The name of the project is stated incorrectly in Section A.1. of the MR. Please, make appropriate corrections. CAR 02. The name of the authority which issued the Letter of Approval from the party-buyer (Switzerland) is not correct in the Ukrainian version of the MR. Please make appropriate corrections.	CAR 01 CAR 02	OK OK
91	Are all the written project approvals by Parties involved unconditional?	All the written project approvals by Parties involved are unconditional	OK	OK
Project implementation				



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	CL 01. Please, explain why emission reduction values for 2009-2010 in the MR coincide with the values that were predicted in the PDD.	CL 01	OK
93	What is the status of operation of the project during the monitoring period?	Mainly the project measures are implemented according to the implementation schedule presented in the determined PDD ver.03. as of 02/04/2012. The first measures under the project started at the end of 2005. During the monitoring period of January 2008-December 2011 all planned measures were implemented. CAR 03. Please, in the MR the provide information regarding implementation status of all project measures planned in the PDD. CAR 04. Please, provide documents confirming implementation of equipment to be installed under the project.	CAR 03 CAR 04	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 only deviation from the initial monitoring plan is the application of carbon dioxide emission factors (EF) for consumption of electricity from the nation power grid of Ukraine set in accordance with: - Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2008" No. 62 dated 15/04/2011; - Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide	CAR 05	OK

VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>emission factors in 2009” No. 63 dated 15/04/2011; - Decree of the National Environmental Investment Agency of Ukraine “On approval of carbon dioxide emission factors in 2010” No. 43 dated 28/03/2011; - Decree of the National Environmental Investment Agency of Ukraine “On approval of carbon dioxide emission factors in 2011” No. 75 dated 12/05/2011. CAR 05. In Section A.8. of the MR the name of the national agency that issued decrees No. 62, No. 63, No. 43, No. 75 that confirm the values of carbon dioxide emission factors is stated incorrectly. Please, make appropriate corrections.</p>		
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	For calculating the emission reductions, key factors such as volume of water to be supplied to the customers, applicable tariffs for water supply and drainage, state policies in potable water and potable water supply sector, experience in implementation of measures provided by the project, existing practice in Ukraine in this sphere, financial costs and experience, sectoral policies of reforms in the water supply sphere and legislation influencing the baseline emissions, the activity level of the project and the project emissions as well as risks associated with the project were taken into account, as appropriate.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	<p>Yes, data sources used for calculating emission reductions are clearly identified, reliable and transparent. CAR 06. According to National environmental</p>	CAR 06 CAR 07 CL 02	OK OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>investment agency decrees No. 62, No. 63, No. 43, No. 75 the name of EF_y factor is stated incorrectly.</p> <p>CAR 07. Total values stated in Section D.1. of the MR relating to GHG emission reductions do not coincide with the values stated in Section A.3. Please make appropriate corrections.</p> <p>CL 02. Please, in Section D.1.5. state that emission reductions caused by the project implementation are calculated as the difference between baseline and project emissions.</p>		
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?	<p>Yes, emission factors, including default emission factors, if used for calculating the emission reductions, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.</p> <p>In calculations carbon dioxide emission factors (EF) for consumption of electricity from the nation power grid of Ukraine were used in accordance with:</p> <ul style="list-style-type: none"> - Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2008" No. 62 dated 15/04/2011; - Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2009" No. 63 dated 15/04/2011; - Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2010" No. 43 dated 28/03/2011. 	CL 03	OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		- Decree of the National Environmental Investment Agency of Ukraine "On approval of carbon dioxide emission factors in 2011" No. 75 dated 12/05/2011; CL 03. In Table 6, Section B.2.1. of the MR description of some parameters do not comply with the description of these parameters provided in Section D. Please, check the description of the parameters.		
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?	Calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.	OK	OK
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/a	N/a	N/a
Applicable to bundled JI SSC projects only				
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/a	N/a	N/a
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have	N/a	N/a	N/a



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the project participants submitted a common monitoring report?			
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?	N/a	N/a	N/a
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	N/a	N/a	N/a
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	N/a	N/a	N/a
Data management				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. CAR 08. Please, provide description of data quality	CAR 08 CAR 09	OK OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		control procedures. CAR 09. The manufacturers of meters aren't stated for all metering equipment in Table 3, Section B.1 of the MR.		
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Yes, The function of the monitoring equipment, including its calibration status, is in order. According to the effective Law of Ukraine "On metrology and metrological activity" all metering devices in Ukraine shall conform to stated requirements of corresponding standards and be calibrated periodically. Calibration of CCE "Mykolayivvodokanal" metering equipment is conducted according to the national standards pursuant to the Certificate No. 071516 dated October 10, 2006 On the state metrological certification of the metrology CCE "Mykolayivvodokanal" department "Water metering workshop". The project complies with legal requirements to the calibration and verification. CAR 10. State calibration intervals for meters of SA-4-1678 and SA-4-679 type in Table 5, Section B.1.2.	CAR 10	OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidence and records used for the monitoring are maintained in a traceable manner. CCE "Mykolayivvodokanal" collects and keeps the data relating to electric energy and acquired water for water-supply in the forms of electric energy and acquired water bills. All information necessary for monitoring of GHGs emission reductions is stored in paper or/and	CAR 11	OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		electronic formats and will be kept till the end of the crediting period and for two years after the last transaction with ERUs from the project. CAR 11. Please provide documentary evidence regarding the data and records used for the monitoring.		
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The data collection and management system for the project is in accordance with the monitoring plan. The verification team confirms effectiveness of the existing management and operational systems and found them eligible for reliable project monitoring. CL 04. Please check the numbering of the Tables and Figures in the MR.	CL 04	OK
Verification regarding programs of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/a	N/a	N/a
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/a	N/a	N/a
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/a	N/a	N/a
104	Does the monitoring period not overlap with previous monitoring periods?	N/a	N/a	N/a
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/a	N/a	N/a
Applicable to sample-based approach only				



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
106	<p>Does the sampling plan prepared by the AIE:</p> <p>(a) Describe its sample selection, taking into account that:</p> <p>(i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as:</p> <ul style="list-style-type: none"> - The types of JPAs; - The complexity of the applicable technologies and/or measures used; - The geographical location of each JPA; - The amounts of expected emission reductions of the JPAs being verified; - The number of JPAs for which emission reductions are being verified; - The length of monitoring periods of the JPAs being verified; and - The samples selected for prior verifications, if any? 	N/a	N/a	N/a
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting	N/a	N/a	N/a



VERIFICATION REPORT

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



TABLE 2 RESOLUTION OF CLARIFICATION AND CORRECTIVE ACTION REQUESTS

Clarification and corrective action requests issued by the verification team	Ref to checklist question in Table 1	Summary of project participant's response	Verification team conclusion
CAR 01. The name of the project is stated incorrectly in Section A.1. of the MR. Please, make appropriate corrections.	90	The name of the project is "Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise "Mykolayivvodokanal". Appropriate corrections were made in the latest version of the MR.	CAR 01 is closed based on corrections made in the MR, version 02.
CAR 02. The name of the authority which issued the Letter of Approval from the party-buyer (Switzerland) is not correct in the Ukrainian version of the MR. Please make appropriate corrections.	90	The Letter of Approval from Switzerland was issued by the Federal Office for the Environment. Relevant corrections were made in the MR, version 02.	CAR 02 is closed based on corrections made in the MR, version 02.
CAR 03. Please, in the MR the provide information regarding implementation status of all project measures planned in the PDD.	93	Information regarding implementation status of all project measures planned in the PDD is provided in Table 2 of the MR and Annex 4 to the MR.	CAR 03 is closed based on information, provided in the MR, version 02.
CAR 04. Please, provide documents confirming implementation of equipment to be installed under the project.	93	Commissioning certificates on pumping equipment (delivery and acceptance certificates) and other confirmatory documents were submitted to the verification team.	CAR 04 is closed based on provision of relevant documents.



VERIFICATION REPORT

<p>CAR 05. In Section A.8. of the MR the name of the national agency that issued decrees No. 62, No. 63, No. 43, No. 75 that confirm the values of carbon dioxide emission factors is stated incorrectly. Please, make appropriate corrections.</p>	94	<p>The name of the national agency that issued decrees No. 62, No. 63, No. 43, No. 75 that confirm the values of carbon dioxide emission factors is the National Environmental Investment Agency of Ukraine.</p> <p>Appropriate corrections were made in the latest version of the MR.</p>	CAR 05 is closed based on corrections made.
<p>CAR 06. According to National environmental investment agency decrees No. 62, No. 63, No. 43, No. 75 the name of EF_y factor is stated incorrectly.</p>	95(b)	<p>EF_y - carbon dioxide emission factor for consumption of electricity from the nation power grid of Ukraine, in period "y", t CO_{2e}/MWh;</p> <p>Appropriate corrections were made in the latest version of the MR.</p>	CAR 06 is closed based on changes made.
<p>CAR 07. Total values stated in Section D.1. of the MR relating to GHG emission reductions do not coincide with the values stated in Section A.3. Please make appropriate corrections.</p>	95 (b)	Appropriate corrections were made in the latest version of MR.	CAR 07 is closed based on changes made.



VERIFICATION REPORT

CAR 08. Please, provide description of data quality control procedures.	101 (a)	Control and monitoring of the system consists in measurement of power consumption, lifted and pumped water, pumped wastewater and treated wastewater of CCE "Mykolayivvodokanal". Other parameters are obtained by calculation or from statistical data. Detailed description of the procedure of data quality control is provided in Section B of the MR version 02.	CAR 08 is closed based on changes made.
CAR 09. The manufacturers of meters aren't stated for all metering equipment in Table 3, Section B.1 of the MR.	101 (a)	Information about manufacturers of metering equipment is provided in the MR version 02.	CAR 09 is closed based on information provided in the MR, version 02.
CAR 10. State calibration intervals for meters of SA-4-I678 and SA-4-679 type in Table 5, Section B.1.2.	101 (b)	Inter-calibration intervals for meters of SA-4-I678 and SA-4-679 type are 4 years. Relevant information was provided in the latest version of the PDD.	CAR 10 is closed based on information provided in the MR, version 02.
CAR 11. Please provide documentary evidence regarding the data and records used for the monitoring.	101 (c)	Electric energy logbooks, lifted water logbooks, reports on electricity consumption by departments, reports of water lifted in the period from 01/01/2008 to 31/12/2011 were provided to the verification team.	CAR 11 is closed based on the information provided in Annex 2 to the MR, version 02.



VERIFICATION REPORT

<p>CL 01. Please, explain why emission reduction values for 2009-2010 in the MR coincide with the values that were predicted in the PDD.</p>	92	<p>Exact match of data relating to greenhouse gas emission reductions of the project “Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise “Mykolayivvodokanal” in 2009 - 2010 in the determined PDD and the MR is explained by the provision of accurate conservative data by CCE “Mykolayivvodokanal” at the stage of PDD development that coincide with those data that were provided for the development of the MR.</p>	<p>CL 01 is closed based on provided information.</p>
<p>CL 02. Please, in Section D.1.5. state that emission reductions caused by the project implementation are calculated as the difference between baseline and project emissions.</p>	95 (b)	<p>Necessary information was provided in the latest version of the MR.</p>	<p>CL 02 is closed based on provided information.</p>
<p>CL 03. In Table 6, Section B.2.1. of the MR description of some parameters do not comply with the description of these parameters provided in Section D. Please, check the description of the parameters.</p>	95 (c)	<p>Appropriate corrections were made in the MR, version 02.</p>	<p>CL 03 is closed based on corrections made.</p>
<p>CL 04. Please check the numbering of the Tables and Figures in the MR.</p>	101 (d)	<p>Appropriate corrections were made in the MR, version 02.</p>	<p>CL 04 is closed based on corrections made.</p>