



**VERIFICATION REPORT**  
INSTITUTE FOR ENVIRONMENT  
AND ENERGY CONSERVATION LTD.

VERIFICATION OF THE  
REVAMPING OF SINTERING AND BLAST-  
FURNACE PRODUCTION AT  
OJSC “DNIPROVSKY INTEGRATED IRON  
AND STEEL WORKS NAMED AFTER  
DZERZHYSKY”

FIFTH PERIODIC  
(01/04/2012 – 30/06/2012)

**REPORT No. UKRAINE-VER/0565/2012**  
REVISION No. 02

BUREAU VERITAS CERTIFICATION



VERIFICATION REPORT

Date of first issue: 31/08/2012		Organizational unit: Bureau Veritas Certification Holding SAS	
Client: Institute for Environment and Energy Conservation Ltd.		Client ref.: Vasyl Vovchak	
Summary: Bureau Veritas Certification has made the fifth periodic verification of the "Revamping of sintering and blast-furnace production at OJSC "Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky", project of the Institute for Environment and Energy Conservation located in the city of Dniprodzerzhynsk, Dnipropetrovsk region, Ukraine, and applying JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria 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 (CL, CAR and FAR), presented in Appendix A. In summary, Bureau Veritas Certification confirms that the project is implemented as described in approved project design documents. Installed equipment being essential for generating emission reductions run reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reductions are calculated accurately and without material errors, omissions, or misstatements, and the ERUs issued totalize 353 686 tonnes of CO2 equivalent for the monitoring period 01/04/2012 – 30/06/2012.  Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.			
Report No.:	Subject Group:		
UKRAINE-ver/0565/2012	JI		
Project title:			
Revamping of sintering and blast-furnace production at OJSC "Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky"			
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Work reviewed by:			
Ivan Sokolov - Internal Technical Reviewer Vera Skitina – Technical specialist		<input checked="" type="checkbox"/>	No distribution without permission from the Client or responsible organizational unit
Work approved by:			
Ivan Sokolov - Operational Manager		<input type="checkbox"/>	Limited distribution
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## Abbreviations

AIE	Accredited Independent Entity
BFG	Blast Furnace Gas
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CHP	Combined Heat and Power
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
COG	Coke Oven Gas
DIISW	PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky”
DFP	Designated Focal Point
DVM	Determination and Verification Manual
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
AAU	Assigned Amount Unit
GHG	Green House Gas(es)
GWP	Global Warming Potential
I	Interview
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
MP	Monitoring Plan
MoV	Means of Verification
NGO	Non Government Organization
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change



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## 1 INTRODUCTION

The Institute for Environment and Energy Conservation Ltd. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (hereafter called “the project”) located in the city of Dniprodzerzhynsk, Dnipropetrovsk region, Ukraine.

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

### 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

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 the determined Project Design Document (PDD) including the project’s baseline study and monitoring plan, 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;

Igor Alekseenko

Bureau Veritas Certification Team Member, Technical specialist;

Iuliia Pylnova

Bureau Veritas Certification Team Member, Climate Change Lead Verifier;

This verification report was reviewed by:

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer;

Vera Skitina

Bureau Veritas Certification, Technical specialist.

## **2 METHODOLOGY**

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

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

- It organizes, details and clarifies the requirements a JI project is expected to meet;



- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

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

## **2.1 Review of Documents**

The Monitoring Report (MR) submitted by the Institute for Environment and Energy Conservation Ltd. and additional background documents related to the project design and baseline, i.e. country Law, PDD, Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report versions 1, 2, 3, and project as described in the determined PDD.

## **2.2 Follow-up Interviews**

On 30/07/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (according to the documentation checked, 23/05/2011 PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” was established by changing the name of juridical person OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” to PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky”) and the Institute for Environment and Energy Conservation Ltd. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

Interviewed organization	Interview topics
PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky”	Organizational structure Responsibilities and authorities Roles and responsibilities for data collection and processing Installation of equipment Data logging, archiving and reporting Metering equipment control Metering record keeping system, database IT management Training of personnel Quality management procedures and technology Internal audits and check-ups
Institute for Environment and Energy Conservation Ltd.	Baseline methodology Monitoring plan Monitoring report

### 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 reductions calculations.

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

- (a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- (b) Clarification request (CL), requesting the project participants to provide additional information for the AIE to assess compliance with the monitoring plan;





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

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

### **3 VERIFICATION CONCLUSIONS**

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

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

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 8 Corrective Action Requests, 9 Clarification Requests, and 0 Forward Action 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**

There are no remaining issues and FARs from the previous verification.

#### **3.2 Project approval by Parties involved (90-91)**

Written approval of the project was received from the Netherlands DFP (Declaration of Approval 2011JI15 on the JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” issued by Ministry of Economic Affairs, Agriculture and Innovation dated 10/05/2011).

Also, Letter of Approval (LoA #1838/23/7 dated 15/07/2011) on the JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky”



was issued by State Environmental Investment Agency of Ukraine that is National Focal Point of host Party (Ukraine).

The abovementioned written approvals are unconditional.

### 3.3 Project implementation (92-93)

The implementation status of the project.

#	Measures	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	<b>Technological improvements of the BFs operation:</b> - improvement of blast furnace coke quality; - decreasing the silicon content in the pig iron; - decreasing the BFs idle times and downtime; - partial substitution of the limestone by lime; - improvement of the quality of agglomerate.									
2	<b>Renewal and reconstruction of BF#1M</b>									
3	<b>Implementation of a new oxygen plant AKAp 40/53-4</b>									
4	<b>Modernization of the sintering process:</b> - improvements of solid fuel burning process, which is part of the sintering charge; - increase of the level of steel waste utilization; - implementation of the state-of-the-art dust suppression and gas purification facilities; - optimization of limestone decomposition reaction; - improvement of natural gas burning process, which is supplied to burners for the ignition of sintering charge; - improvements of chemical composition									



	of sinter charge; - reduction of fine fraction content in agglomerate.									
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The identified areas of concern as to project implementation, project participants response and BV Certification’s conclusion are described in Appendix A (refer to CL 03).

### 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 indicators, constants and variables such as total pig iron output, quantity of each fuel used in making pig iron, emission factor for fuel consumption, electricity consumed in producing pig iron, emission factor for electricity consumption, quantity of fuel used in sintering process, electricity consumed in sintering process, quantity of reducing agents, emission factor of each reducing agent, quantity of each other input, emission factor of each other input, quantity of fuel used for balance of process needs, and electricity consumed for balance of process needs, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions 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.

Monitoring report for the project is already using specific values of carbon dioxide emission factors for fuel based on specific carbon content or calorific value of fuel. Emission factors for production of coke, iron



pellets, lime and dolomite are based on IPCC data due to the fact that national data are not officially approved by the national designating entity. As soon as they are approved, the corresponding changes will be incorporated into the monitoring reports.

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

The fact that calculation of emission reductions is based on conservative assumptions can be proved by the following facts:

- the price of natural gas in the baseline period was lower than in the project line period. That's why there were no substitutions of natural gas by coal as it was in project line period. As a result, such substitution decreased the total amount of emission reductions;
- the quality of iron-bearing materials in project line period sometimes was lower in comparison with the baseline period. That was the reason of the total amount of emission reductions decrease.

The amount of emission reductions that was actually generated during the 2<sup>nd</sup> quarter of 2012 was lower than it was expected in PDD (approximately 564 959 tonnes of CO<sub>2</sub>e) because of the following reasons. First of all, taking into account that during this monitoring period the quality of raw materials and other inputs consumed under the project activity was low, the actual level of specific fuel and energy resources consumption per unit of output was a bit higher than it was expected in PDD. Secondly, taking into account that such measures as technological improvements of the BFs operation and modernization of the sintering process were not fully implemented as planned, it has also influenced on decrease of actual volumes of emission reductions in comparison with estimations in PDD.

The identified areas of concern as to Compliance of the monitoring plan with the monitoring methodology, project participants response and BV Certification's conclusion are described in Appendix A (refer to CAR 01, CL 01, CL 02, CAR 02, CAR 03, CAR 04, and CL 09).

### **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. These procedures are mentioned in the section “References” of this report.

The function of the monitoring equipment, including its calibration status, is in order. The list of the monitoring equipment is provided in Annex 1 of the Monitoring Report of the final version.

The procedure of electricity meters verification is quite a long process. Therefore, in order to prevent errors in metering electricity, meters that are to be verified removed, and instead are installed other verified meters, but of the same type, or with admissible deviation concerning types and which meet the technical requirements. Removed meters are sent for verification, where they are calibrated and then installed, perhaps, in some other place. Thus, during the monitoring period, there were replaced the following electricity meters: # 11 of electric substation of blast-furnace shop, electricity meters ## 114, 115, 126, 128, 129, and 137 of electric substation of water supply shop, electricity meter # 150 of electric substation of Oxygen shop and electricity meter # 159 of electric substation of CHP.

In case of having problems with certain monitoring equipment, the accounting system is organized in such way that allows double checking of all the data. Ultimately all information can be proven by independent invoices from the third parties.

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

The quality assurance procedures are based on the Plant's ISO 9001:2001 quality management system (QMS), which was further upgraded to the more recent ISO 9001:2008 version. The QMS covers the whole of the Plant's production process. Furthermore, an OHSAS 18001:2007 industrial safety management system and an ISO 14001:2004 environmental management system were implemented in 2009. Compliance audits for the mentioned above standards are performed in accordance with “Guidance on quality management systems”



and other regulatory documents of DIISW. The bureau of standardized certification is responsible for management, realization and storage of audits data. The audits are conducted on monthly basis in accordance with schedule developed at the beginning of each year by the group of accredited auditors of the bureau of standardized certification. In addition, the Plant has a number of other certificates, which proof the project monitoring quality assurance.

During this monitoring period, planned audits on compliance to the standards of ISO 9001:2008, ISO 14001 and OHSAS 18001 were conducted. Verifiers have been provided with the report on audit on compliance to the standard of ISO 14001 dated 10/07/2012, report on audit on compliance to the standard of OHSAS 18001 dated 14/05/2012 and two reports on audit on compliance to the standard of ISO 9001:2008 dated 25/06/2012 and 19/06/2012.

All the equipment used for monitoring purposes is in line with national legislative requirements and standards. The documented instructions to operate the facilities are stored at working places. Verification and calibration of equipment are conducted at the plant in accordance with in STP 230-35-07 Metrological Support of Measuring Equipment. List of monitoring equipment is provided in Annex 1. The data cross check as well as internal audits and corrective actions are taken as defined in STP 230-18-03 Quality Management System Internal Audits and according to the standards ISO 9001:2008, ISO 14001 and OHSAS 18001.

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

The identified areas of concern as to Data management, project participants response and BV Certification's conclusion are described in Appendix A (refer to CL 04, CL 05, CAR 05, CL 06, CL 07, CAR 06, CAR 07, and CAR 08).

### **3.7 Verification regarding programmes of activities (102-110)**

Not applicable.



## 4 VERIFICATION OPINION

Bureau Veritas Certification has performed the fifth periodic verification of the “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” Project 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 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 PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions of the project on the basis set out within the project Monitoring Plan indicated in the final PDD version 6. 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 3 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in approved PDD. Installed equipment being essential for generating emission reductions runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reductions are accurately calculated and are free of material errors, omissions, or misstatements. Our opinion relates to the project’s GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring plan, and its associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:



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VERIFICATION REPORT

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Reporting period: From 01/04/2012 to 30/06/2012

Baseline emissions	: 2 555 059 tonnes of CO <sub>2</sub> equivalents.
Project emissions	: 2 201 373 tonnes of CO <sub>2</sub> equivalents.
Emission Reductions	: 353 686 tonnes of CO <sub>2</sub> equivalents.

For the monitoring period (01/04/2012 – 30/06/2012), total amount of emission reductions is 353 686 tonnes of CO<sub>2</sub> equivalents.

Project and baseline emissions which are stated above are rounded by monitoring report developers to the whole figure and are based on calculations which are demonstrated in excel file attached to the monitoring report.





## 5 REFERENCES

### Category 1 Documents:

Documents provided by the Institute for Environment and Energy Conservation Ltd. that relate directly to the GHG components of the project.

- /1/ PDD “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky”, version 6 dated 10/05/2011;
- /2/ Decree of Cabinet of Ministers of Ukraine #206, dated 22/02/2006;
- /3/ Monitoring Report “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (2 quarter of 2012), version 1 dated 23/07/2012;
- /4/ Monitoring Report “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (2 quarter of 2012), version 2 dated 08/08/2012;
- /5/ Monitoring Report “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (2 quarter of 2012), version 3 dated 23/08/2012;
- /6/ Letter of Endorsement № 1807/23/7 on the JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” dated November, 09, 2010 issued by National Environmental Investment Agency of Ukraine;
- /7/ Declaration of Approval 2011JI15 on the JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” issued by Ministry of Economic Affairs, Agriculture and Innovation dated 10/05/2011;
- /8/ Letter of Approval #1838/23/7 dated 15/07/2011 on the JI project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” issued by State Environmental Investment Agency of Ukraine;
- /9/ Excel-file “Calculation of emission reductions for the project “Revamping of sintering and blast-furnace production at OJSC “Dniprovsky Integrated Iron and Steel Works named after



Dzerzhynsky”\_2 quarter of 2012”;  
/10/ Excel-file “Calculation of natural gas calorific value” (2 quarter of 2012).

### Category 2 Documents:

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

- /1/ Glossary of JI terms, version 03, JISC;
- /2/ Guidance on Criteria for Baseline Setting and Monitoring, version 03, JISC;
- /3/ JISC “Clarification regarding the public availability of documents under the verification procedure under the Joint Implementation Supervisory Committee.” Version 03;
- /4/ QMS internal audits schedule on 2012
- /5/ Errand # 17 dated 05/06/2012 on QMS internal audit
- /6/ Report dated 25/06/2012 on QMS internal audit (as per Errand # 17 dated 05/06/2012)
- /7/ Errand # 15 dated 05/06/2012 on QMS internal audit
- /8/ Report dated 19/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /9/ Non-conformity statement # 1 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /10/ Non-conformity statement # 2 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /11/ Non-conformity statement # 3 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /12/ Non-conformity statement # 4 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /13/ Non-conformity statement # 5 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /14/ Non-conformity statement # 6 dated 12-15/06/2012 on QMS internal audit (as per Errand # 15 dated 05/06/2012)
- /15/ Card on meter type И670, fabrication # 374202 (last calibration date–06/03/2012)
- /16/ Card on meter type CA3Y И670, fabrication # 740734 (last calibration date–17/05/2012)
- /17/ Statement # 1010T dated 14/05/2012 on EMS and OHSAS internal audits
- /18/ Passport of natural gas physical and chemical parameters for the period from 01/05/2012 till 31/05/2012
- /19/ Passport of natural gas physical and chemical parameters for the period from 01/04/2012 till 30/04/2012



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- /20/ Passport of natural gas physical and chemical parameters for the period from 01/06/2012 till 30/06/2012
- /21/ Report on environmental protection for the II quarter 2012. Form # 2-ТП (air) (per quarter)
- /22/ Report on generated, processed and consumed by DIISW active power for the period from 1 to 30 April 2012
- /23/ Report on generated, processed and consumed by DIISW active power for the period from 1 to 31 May 2012
- /24/ Report on generated, processed and consumed by DIISW active power for the period from 1 to 30 June 2012
- /25/ Protocol # 167a dated 03/03/2012 on calibration of natural gas pressure sensor type Метран-100, fabrication # 65430
- /26/ Passport on natural gas pressure sensor type Метран-100, fabrication # 65430
- /27/ Protocol # 142a dated 05/03/2012 on calibration of natural gas pressure sensor type Метран-100, fabrication # 66737
- /28/ Card on meter type САЗУ ИТ, fabrication # 112041 (last calibration date–17/05/2012)
- /29/ Card on meter type САЗУ И670, fabrication # 112201 (last calibration date–17/05/2012)
- /30/ Card on meter type И670, fabrication # 193791 (last calibration date–06/03/2012)
- /31/ Card on meter type И670М, fabrication # 329704 (last calibration date–17/05/2012)
- /32/ Card on meter type И670, fabrication # 350258 (last calibration date–06/03/2012)
- /33/ Card on meter type И670М, fabrication # 366162 (last calibration date–13/04/2012)
- /34/ Card on meter type И670М, fabrication # 366527 (last calibration date–17/05/2012)
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- /58/ Balance sheet on electricity consumption for April 2012
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- /61/ Balance sheet on active power consumption for May 2012
- /62/ Balance sheet on electricity consumption for June 2012
- /63/ Balance sheet on active power consumption for June 2012
- /64/ Logbook on meters replacement
- /65/ Instruction № 141 dated 22/05/2012 on organization of production and technical training
- /66/ Protocol # 1316 dated 19/06/2012 on production and technical training
- /67/ Protocol # 1023 dated 15/05/2012 on retraining
- /68/ Protocol # 1017 dated 26/04/2012 on retraining
- /69/ Protocol # 1311 dated 04/05/2012 on second profession training
- /70/ Protocol # 1312 dated 04/05/2012 on second profession training
- /71/ Protocol # 1313 dated 14/06/2012 on second profession training
- /72/ Protocol # 1210 dated 25/06/2012 on retraining
- /73/ Protocol # 1209 dated 27/04/2012 on retraining
- /74/ Protocol # 1204 dated 26/04/2012 on retraining
- /75/ Protocol # 1200 dated 12/06/2012 on production and technical training
- /76/ Protocol # 1012 dated 08/05/2012 on production and technical training
- /77/ Information on plant personnel training in the second quarter of 2012
- /78/ Report on internal audits for the second quarter of 2012



**Persons interviewed:**

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

- /1/ Zolotarevskaya I. G. – acting head of the environment protection service of DIISW
- /2/ Motsnyi V. V. – acting head of the technical department DIISW
- /3/ Turkyn M. B. – deputy chief power engineer DIISW
- /4/ Filipov A. V. – acting deputy chief power engineer DIISW
- /5/ Sinelnikov N. A. – representative of electrical laboratory of DIISW
- /6/ Bogdanovic I.N. – representative of the laboratory of metrology of DIISW
- /7/ Chayun O.N. – acting head of the personnel technical education and training department of DIISW
- /8/ Ivanov G.B. – head of the Office of Standardization and Certification
- /9/ Honcharenko S. H. – head of the technical department of DIISW
- /10/ Seredyuk V.V. – ecology department manager of the Institute for Environment and Energy Conservation Ltd.
- /11/ Linnik Y. – leading specialist of ecology department acting head of of the Institute for Environment and Energy Conservation Ltd.



## APPENDIX A: VERIFICATION PROTOCOL

### BUREAU VERITAS CERTIFICATION HOLDING SAS

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
<b>Project approvals by Parties involved</b>				
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?	10/05/2011 the DFP of the Netherlands has issued LoA for the project.	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	The written project approvals by Parties involved are unconditional.	OK	OK



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<b>Project implementation</b>				
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?	Implementation of the project activity is based on the project implementation schedule included in the PDD.	OK	OK
93	What is the status of operation of the project during the monitoring period?	<p>Monitoring report indicates the current status of the project activity implementation.</p> <p>1. Technological improvements in the BFs operation:</p> <ul style="list-style-type: none"> <li>- improvement of blast furnace coke quality;</li> <li>- decreasing the silicon content in the pig iron;</li> <li>- decreasing the BFs idle times and downtime;</li> <li>- partial substitution of the limestone by lime;</li> <li>- improvement of the quality of agglomerate.</li> </ul> <p>2. Renewal and reconstruction of BF # 1M.</p> <p>3. Implementation of a new oxygen plant AKAp 40/53-4.</p>	OK	OK



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		<p>4. Modernization of the sintering process:</p> <ul style="list-style-type: none"> <li>- improvements of solid fuel burning process, which is part of the sintering charge;</li> <li>- increase of the level of steel waste utilization;</li> <li>- implementation of the state-of-the-art dust suppression and gas purification facilities;</li> <li>- optimization of limestone decomposition reaction;</li> <li>- improvement of natural gas burning process, which is supplied to burners for the ignition of sintering charge;</li> <li>- improvements of chemical composition of sinter charge;</li> <li>- reduction of fine fraction content in agglomerate.</li> </ul> <p><b>CL 03.</b> Please, correct the interpretation of the abbreviation "AIE" (pg.2 of the MR) as all the words should be written with a capital letter.</p>	<p>CL 03</p>	<p>OK</p>
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## VERIFICATION REPORT

**Compliance with monitoring plan**

94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The monitoring is based on actual data (mentioned in the reporting documents) of output production, and FER (fuel and energy resources) consumption under the projectline and baseline scenarios as it is required by the JI PDD.	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) 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?	<p>According to the monitoring report, key factors and other risks associated with the project (that can influence baseline and project emissions) are taken into account.</p> <p><b>CL 07.</b> Please, provide information concerning reporting risks and include this information in the Monitoring Report. Also, please, clarify whether there are possibilities of redundant data monitoring in case of having problems with the used monitoring equipment.</p> <p><b>CAR 03.</b> Please, correct (where necessary) filling of the tables in the ERUs calculation file (spreadsheet "99-03r.r."), because there are some Excel mistakes</p>	<p>CL 07</p> <p>CAR 03</p>	<p>OK</p> <p>OK</p>



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		(please, increase the columns size or change the number format of cells).  <b>CL 09.</b> Please, entitle the tables with projectline and baseline parameters in the 2 <sup>nd</sup> spreadsheet of the Excel-file.	CL 09	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Data sources used for calculating emission reductions are identified in the Monitoring report. Data were collected in the electronic database of DIISW and in printed documents. Also data were systematized in the documents of the daily, monthly and annually registration. All those documents were saved in the planning-economic department.	OK	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the	<b>CL 02.</b> Please, clarify the use of emission factors from IPCC (especially from IPCC 2006, which is not approved in Ukraine) while the latest values of national emission factors (in accordance with National Inventory of Greenhouse Gases) are available. Specifically, pay attention to the carbon	CL 02	OK



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	choice?	<p>emission factor for coal as just the value of this factor is stated in the National Inventory while the project developer has used emission factor based on calorific value of anthracite taken from IPCC 2006.</p> <p><b>CAR 01.</b> Please, explain why emission factor for natural gas consumption based on fixed calorific value of natural gas consumption, not on actual calorific value. Please, correct/clarify. Also, please, confirm natural gas calorific value of 8100 kcal/m<sup>3</sup>; indicate the source of this value (please, see pg. 5 of MR).</p> <p><b>CL 01.</b> Please, provide the source of the value of emission factor for coke production (0,56).</p> <p><b>CAR 02.</b> In accordance with the Order of the National Environmental Investment Agency of Ukraine #75 dated 12/05/2011 the carbon emission factor (for the 1<sup>st</sup> – class electricity consumers, i.e. for DIISW) is 1,090 kgCO<sub>2</sub>/kWh. Please, state correctly the value of this factor</p>	<p>CAR 01</p> <p>CL 01</p> <p>CAR 02</p>	<p>OK</p> <p>OK</p> <p>OK</p>
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		throughout the whole MR and ERUs calculations in Excel-file (please, use the value 1,090 kgCO <sub>2</sub> /kWh instead of 1,09 kgCO <sub>2</sub> /kWh everywhere in the documents in order to be consistent).		
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?	<p>The calculation of emission reductions is based on conservative assumptions.</p> <p><b>CAR 04.</b> Please, correct the values in the table of the MR section 4 as taking into account the value of baseline emissions (2 553 049 t CO<sub>2</sub>) and the value of the project emissions (2 199 982 t CO<sub>2</sub>), it is impossible to get the value of 353 066 t CO<sub>2</sub> for emission reductions. Considering more detailed values stated in the Excel file, it is very advisable to round off the value of baseline emissions in accordance with conservative principle, and than calculate ERUs keeping this in mind.</p> <p>Please, make MR calculations consistent with Excel-file calculations.</p>	CAR 04	OK



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<b>Applicable to JI SSC projects only</b>				
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
<b>Applicable to bundled JI SSC projects only</b>				
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/A	N/A	N/A
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/A	N/A	N/A



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98	<p>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?</p> <p>Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?</p>	N/A	N/A	N/A
<p><b>Revision of monitoring plan</b>  <b>Applicable only if monitoring plan is revised by project participant</b></p>				
99 (a)	<p>Did the project participants provide an appropriate justification for the proposed revision?</p>	N/A	N/A	N/A
99 (b)	<p>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</p>	N/A	N/A	N/A



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	establishment of monitoring plans?			
<b>Data management</b>				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	<p>Procedures of data collection are implemented in compliance with the monitoring plan.</p> <p><b>CL 04.</b> Please, pay attention to the fact that document "Report on internal audit_ISO 14001, OHSAS 18001" (provided to the verification team) includes information only on the audit ISO 14001. Besides, it seems like an inconsistency that the above-mentioned report is of July 2012, but the expected (planned) date of corrective actions (stated in the report) is April 2012 etc. Please, clarify.</p> <p><b>CL 05.</b> Please, add to the MR section 5 information on audits on compliance to the standards ISO 9001 and OHSAS 18001 conducted during the monitoring period (2 quarter 2012), if such audits were performed within this period; please,</p>	CL 04	OK
			CL 05	OK



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		<p>mention dates of reports on compliance audits. Also, please, provide copies of the audit reports to the verification team.</p> <p><b>CL 06.</b> Please, give (in the section 6 of the MR) more detailed information on training/seminars organized by DIISW just during the monitoring period (2 quarter of 2012), and provide documentary evidences of the conducted training to the verification team.</p> <p><b>CAR 05.</b> Please, provide interpretation of the abbreviation I&amp;C (pg. 13 of the English version of MR), and check its compliance with the Ukrainian version.</p>	<p>CL 06</p> <p>CAR 05</p>	<p>OK</p> <p>OK</p>
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	<p>The monitoring equipment is properly calibrated.</p> <p><b>CAR 06.</b> In case if there are facts of meters replacement during the monitoring period, both meters (the meter before replacement and next one after replacement) should be indicated in the list of monitoring equipment of the MR.</p>	CAR 06	OK







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		type И 670, ser. # 374202. The provided passports on these meters do not contain information on the last calibration dates that are indicated in the Annex 1 of the MR.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Monitoring data is collected into electronic database of DIISW as well as in paper format. Data is further compiled in (i) day-to-day records, (ii) quarterly records, and (iii) annual records. All records are finally stored in Planning Department.	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The data collection and management system for the project is in accordance with the monitoring plan.	OK	OK
<b>Verification regarding programs of activities (additional elements for assessment)</b>				
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



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103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each N/A 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
<b>Applicable to sample-based approach only</b>				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs	N/A	N/A	N/A



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	<p>identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as:</p> <ul style="list-style-type: none"> <li>- The types of JPAs;</li> <li>- The complexity of the applicable technologies and/or measures used;</li> <li>- The geographical location of each JPA;</li> <li>- The amounts of expected emission reductions of the JPAs being verified;</li> <li>- The number of JPAs for which emission reductions are being verified;</li> <li>- The length of monitoring periods of the JPAs being verified; and</li> </ul> <p>The samples selected for prior verifications, if any?</p>			
107	<p>Is the sampling plan ready for publication through the secretariat along with the verification report and supporting</p>	N/A	N/A	N/A



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	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



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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
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## VERIFICATION REPORT

**Table 2 Resolution of Corrective Action and Clarification Requests**

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<p><b>CAR 01.</b> Please, explain why emission factor for natural gas consumption based on fixed calorific value of natural gas consumption, not on actual calorific value. Please, correct/clarify. Also, please, confirm natural gas calorific value of 8100kcal/m<sup>3</sup>; indicate the source of this value (please, see pg. 5 of MR).</p>	95 (c)	<p><b>Response #1.</b> Data regarding net calorific value of natural gas is contained in passports on natural gas physical and chemical parameters, which are already provided to the verifier. Taking into account that during this monitoring period data regarding net calorific value of natural gas had been received at DIISW on regular basis, emission factor for natural gas was calculated on the basis of its actual carbon content. ERUs were recalculated taking into account new emission factor. Please see the modified file with calculations.</p>	<p><b>Conclusion on response #1.</b> Please, provide to the verification team Excel-file with calculation of calorific value of natural gas for the second quarter of 2012.</p>



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		<b>Response #2.</b> Excel-file with calculation of calorific value of natural gas for the second quarter of 2012 is provided to the verifier.	<b>Conclusion on response #2.</b> The issue is closed based on the Excel-file provided.
<b>CL 01.</b> Please, provide the source of the value of emission factor for coke production (0,56).	95 (c)	Emission factor for coke production is in accordance with 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 Industrial Processes and Product Use, Chapter 4 Metal Industries Emissions, Section 4.2.2.3 Choice of Emission Factors, Table 4.1, page 4.25 ( <a href="http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/3_Volume3/V3_4_Ch4_Metal_Industry.pdf">http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/3_Volume3/V3_4_Ch4_Metal_Industry.pdf</a> ).  This information is contained in reference # 09 of the MR.	The issue is closed based on the explanation provided.
<b>CL 02.</b> Please, clarify the use of emission factors from IPCC (especially from IPCC 2006, which is not approved in Ukraine) while the latest	95 (c)	Monitoring report is already using specific values of carbon dioxide emission factors for fuel based on specific carbon content or calorific value of	Due to the clarification provided, the issue is resolved.





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<p>values of national emission factors (in accordance with National Inventory of Greenhouse Gases) are available. Specifically, pay attention to the carbon emission factor for coal as just the value of this factor is stated in the National Inventory while the project developer has used emission factor based on calorific value of anthracite taken from IPCC 2006.</p>		<p>fuel. Emission factors from consumption of coal (anthracite), limestone and dolomite and for production of coke and iron pellets are based on IPCC data due to the fact that national data are not officially approved by the national designating entity. As soon as they are approved, the corresponding changes will be incorporated into the monitoring reports.</p> <p>Together with this, taking into account that most of coal, that was consumed, had common quality characteristics and calorific value to anthracite and also because National GHG Inventory doesn't provide information regarding the net calorific value of anthracite, the project developer calculated carbon emission factor for coal based on carbon content of anthracite, which is in accordance with IPCC 1996 data and on the net calorific value of anthracite, which in</p>	
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		accordance with IPCC 2006 data.	
<b>CAR 02.</b> In accordance with the Order of the National Environmental Investment Agency of Ukraine #75 dated 12/05/2011 the carbon emission factor (for the 1 <sup>st</sup> –class electricity consumers, i.e. for DIISW) is 1,090 kgCO <sub>2</sub> /kWh. Please, state correctly the value of this factor throughout the whole MR and ERUs calculations in Excel-file (please, use the value 1,090 kgCO <sub>2</sub> /kWh instead of 1,09 kgCO <sub>2</sub> /kWh everywhere in the documents in order to be consistent ).	95 (c)	Appropriate corrections have been done to the MR and emission reductions calculations in Excel-file. Please see modified versions of the documents.	Based on the corrections made, CAR 02 is closed.
<b>CL 03.</b> Please, correct the interpretation of the abbreviation “AIE” (pg.2 of the MR) as all the words should be written with a capital letter.	93	Appropriate corrections have been made. Please see modified MR.	The issue is closed due to the amendments made.
<b>CAR 03.</b> Please, correct (where necessary) filling of the tables in the ERUs calculation file (spreadsheet	95 (a)	<b>Response #1.</b> Appropriate corrections have been made. Please see modified Excel-file.	<b>Conclusion on response #1.</b> There are still some Excel



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<p>“99-03г.г.”), because there are some Excel mistakes (please, increase the columns size or change the number format of cells).</p>		<p><b>Response #2.</b> Appropriate corrections have been made. Please see modified Excel-file.</p>	<p>mistakes in the file. Please, correct.</p> <p><b>Conclusion on response #2.</b> CAR 03 is closed based on the amendments made.</p>
<p><b>CAR 04.</b> Please, correct the values in the table of the MR section 4 as taking into account the value of baseline emissions (2 553 049 t CO<sub>2</sub>) and the value of the project emissions (2 199 982 t CO<sub>2</sub>), it is impossible to get the value of 353 066 t CO<sub>2</sub> for emission reductions. Considering more detailed values stated in the Excel file, it is very advisable to round off the value of baseline emissions in accordance with conservative principle, and than calculate ERUs keeping this in mind. Please, make MR calculations consistent with Excel-file calculations.</p>	<p>95 (d)</p>	<p><b>Response #1.</b> Appropriate amendments have been done in the Excel-file and now baseline emissions are rounded in accordance with conservative principle, which was also considered when calculating ERUs. Appropriate corrections have been done to the MR and emission reductions calculations in Excel-file. Please see modified versions of the documents.</p> <p><b>Response #2.</b> Appropriate corrections have been made. Please see modified Excel-file.</p>	<p><b>Conclusion on response #1.</b> Please, pay attention to the fact that values of the baseline emissions and emission reductions are stated in the Excel-file several times but for all that there is no consistency between these values.</p> <p><b>Conclusion on response #2.</b> Due to the corrections made, CAR 04 is closed.</p>



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<p><b>CL 04.</b> Please, pay attention to the fact that document “Report on internal audit_ISO 14001, OHSAS 18001” (provided to the verification team) includes information only on the audit ISO 14001. Besides, it seems like an inconsistency that the above-mentioned report is of July 2012, but the expected (planned) date of corrective actions (stated in the report) is April 2012 etc. Please, clarify.</p>	<p>101 (a)</p>	<p>The title of the report on internal audit ISO 14001 contains also name of the standard OHSAS 18001, what is caused by the fact that at DIISW is implemented integrated environmental management system and industrial safety management system. Report on internal audit OHSAS 18001 has been separately provided to the verification team. Concerning the indicated inconsistency with dates, it should be clarified that the report on internal audit ISO 14001 was approved in July, but it concerns the second quarter of 2012 and therefore contains information cumulated for the three month starting with April.</p>	<p>The issue is closed based on the clarification provided.</p>
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<p><b>CL 05.</b> Please, add to the MR section 5 information on audits on compliance to the standards ISO 9001 and OHSAS 18001 conducted during the monitoring period (2 quarter 2012), if such audits were performed within this period; please, mention dates of reports on compliance audits. Also, please, provide copies of the audit reports to the verification team.</p>	101 (a)	<p>Information on audits conducted during the second quarter of 2012 is provided in the MR. Copies of these reports are given to the verifier.</p>	<p>CL 05 is closed based on the information provided.</p>
<p><b>CAR 05.</b> Please, provide interpretation of the abbreviation I&amp;C (pg. 13 of the English version of MR), and check its compliance with the Ukrainian version.</p>	101 (a)	<p><b>Response #1.</b> The abbreviation I&amp;C, which is provided on page 13 of the English version of MR, means “instrumentation and control”.</p> <p><b>Response #2.</b> Appropriate corrections have been made. Please see modified MR.</p>	<p><b>Conclusion on response #1.</b> At the first use of the abbreviation in the text of the monitoring report, please, provide its interpretation.</p> <p><b>Conclusion on response #2.</b> The issue is closed based on the amendments made.</p>



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<p><b>CL 06.</b> Please, give (in the section 6 of the MR) more detailed information on training/seminars organized by DIISW just during the monitoring period (2 quarter of 2012), and provide documentary evidences of the conducted training to the verification team.</p>	101 (a)	<p>More detailed information on training/seminars organized by DIISW during the monitoring period is now provided in modified version of the MR. Documentary evidences of the conducted training are provided to the verification team.</p>	<p>Due to the documentation provided, the issue is closed.</p>
<p><b>CL 07.</b> Please, provide information concerning reporting risks and include this information in the Monitoring Report. Also, please, clarify whether there are possibilities of redundant data monitoring in case of having problems with the used monitoring equipment.</p>	95 (a)	<p>Information concerning reporting risks is provided in the Monitoring Report. Please see modified version of the MR.</p>	<p>The issue is closed.</p>



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<p><b>CAR 06.</b> In case if there are facts of meters replacement during the monitoring period, both meters (the meter before replacement and next one after replacement) should be indicated in the list of monitoring equipment of the MR.</p>	<p>101 (b)</p>	<p>In the list of monitoring equipment is added information on both meters, before and after their replacement. Please see modified version of the MR.</p>	<p>CAR 06 is closed based on the corrections made.</p>
<p><b>CAR 07.</b> Please, explain (in the MR section 5) why types and serial numbers of some units of the measuring equipment indicated in the MR for this monitoring period differs from the types and numbers of the same measuring equipment indicated in the MR for the previous monitoring period. If necessary, please, describe and justify (in the MR) the fact of the meters replacement; or describe why the previous types and numbers included mistakes or misprints. (Particularly, please, pay special attention to the electricity meter #11 of electric substation of blast-furnace shop; electricity meters ##114, 115, 126, 128, 129, and 137 of electric</p>	<p>101 (b)</p>	<p>Appropriate amendments have been done to MR. Please see modified version of MR.</p>	<p>Due to the information added to the PDD, CAR 07 is closed.</p>



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<p>substation of water supply shop; electricity meter #150 of electric substation of oxygen shop; and electricity meter #159 of electric substation of gas shop).</p>			
<p><b>CAR 08.</b> Please, confirm the last calibration dates for the following meters: electricity meter #126 of type I670, ser.#740734 and electricity meter #155 of type I 670, ser.#374202. The provided passports on these meters do not contain information on the last calibration dates that are indicated in the Annex 1 of the MR.</p>	101 (b)	<p>The last calibration dates for the electricity meter #126 of type I670, ser.#740734 and electricity meter #155 of type I 670, ser.#374202 given in the list of the MR are in compliance with the data given in passports for the measuring equipment.</p>	<p>The issue is successfully resolved.</p>
<p><b>CL 09.</b> Please, entitle the tables with projectline and baseline parameters in the 2<sup>nd</sup> spreadsheet of the Excel-file.</p>	95 (a)	<p>Appropriate corrections have been made. Please see modified Excel-file.</p>	<p>Based on the amendments made, the issue is closed.</p>