VERIFICATION REPORT

INSTITUTE FOR ENVIRONMENT AND ENERGY CONSERVATION

VERIFICATION OF THE

TECHNICAL UPGRADE OF OJSC DNIPROVSKY INTEGRATED IRON AND STEEL WORKS NAMED AFTER DZERZHYNSKY BY INSTALLATION OF TWO BILLET CONTINUOUS CASTING MACHINES AND TWO LADLE FURNACES

FOURTH PERIODIC
(01 APRIL 2012 – 30 JUNE 2012)

REPORT NO. UKRAINE-VER/0564/2012

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Date of first issue:	Organizational unit:
16/08/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
Institute for Environment and Energy Conservation	Vasyl Vovchak

Summary:

Bureau Veritas Certification has made the 4th periodic verification of the JI project "Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces", ITL project ID UA1000280, the project of Institute for Environment and Energy Conservation located in the town of Dniprodzerzhynsk, Dnipropetrovsk region, Ukraine, and applying the JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited 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 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 345 782 tonnes of CO_2 equivalent for the monitoring period from 01/04/2012 to 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/0564/2012	JI	
Project title:		
Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces		
Work carried out by:		
Rostislav Topchiy – Team Leader, Lead Verifier Vitaliy Minyaylo – Team Member, Verifier Igor Alekseenko – Team Member, Technical expert		
Work reviewed by:		
Ivan Sokolov – Internal Technical Reviewer Elena Mazlova – Technical expert		
Work approved by:		
Ivan Sokolov – Operational Manager		
Date of this revision:	**Rev. No.:**	**Number of pages:**
16/08/2012	01	31

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Table of Contents *Page*

Abbreviations

AIE	Accredited Independent Entity
BVC	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CCM	Continuous Casting Machines
CDM	Clean Development Mechanism
CL	Clarification Request
CO_2	Carbon Dioxide
DFP	Designated Focal Point
DIISW	PJSC "Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky"
DVM	Determination and Verification Manual
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Green House Gas(es)
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LF	Ladle Furnace
MP	Monitoring Plan
MR	Monitoring Report
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change

1 INTRODUCTION

Institute for Environment and Energy Conservation has commissioned Bureau Veritas Certification to verify the emission reductions of its JI project “Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces” (hereafter called “the project”) at the at 18-B Kirova Street, 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.

The verification covers the period from the 1st April 2012 to 30th June 2012.

1.1 Objective

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

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

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

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, 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:

Rostislav Topchiy
Bureau Veritas Certification, Team Leader, Climate Change Lead Verifier

Vitaliy Minyaylo
Bureau Veritas Certification, Team Member, Climate Change Verifier

Igor Alekseenko
Bureau Veritas Certification, Team Member, Technical Expert

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

Elena Mazlova
Bureau Veritas Certification Technical Expert

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 Institute for Environment and Energy Conservation and additional background documents related to the project design, baseline, and monitoring plan, i.e. country Law, Project Design Document (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 version 1 of 23/07/2012, version 2 of 15/08/2012 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 07/08/2012 Bureau Veritas Certification verification team conducted a visit to the project site (PJSC "Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky") and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Institute for Environment and Energy Conservation and PJSC "Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky" were interviewed (see References). The main topics of the interviews are summarized in Table1.

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
Consultant: Institute for Environment and Energy Conservation Ltd.	Baseline methodology Monitoring plan Monitoring report Deviations from 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 07 Corrective 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

Remaining issues and FARs from previous verification are absent.

3.2 Project approval by Parties involved (90-91)

The project was approved by the host Party, Ukraine, which is confirmed by the Letter of Approval No. 2077/23/7 dated 08/08/2011 issued by State Environmental Investment Agency of Ukraine. As to the other Party involved, although the PDD indicates it as Spain with “Endesa Carbono” company being a legal entity project participant, the written approval for the current JI project was issued by the Netherlands authorizing Endesa Carbono to participate in this Project for the purpose of article 6 of the Kyoto Protocol (Declaration of Approval ref. No 2011JI28 dated 05/07/2011 issued by NL Agency, implementing agency of the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands). This happened because of the fact that the Spanish company Endesa Carbono has its accounts in national registries of both Spain and the Netherlands.

Bureau Veritas Certification received written approvals from the project participants and does not doubt their authenticity.

The abovementioned written approvals are unconditional.

3.3 Project implementation (92-93)

The project which is being implemented at the PJSC “Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky” (DIISW), is strengthen competitiveness of steelmaking process and reduce load on the environment, including through reduction of greenhouse gas (GHG) emissions into atmosphere, management of DIISW and ISD decided to upgrade the Plant’s process cycle by introducing two ladle furnaces (LF 1 and LF 2) and two new seven-strand billet continuous casting machines (CCM 1 and CCM 3).

The project technology envisages that steel molten in converters are dressed in the new two LFs where ferroalloys and other required additives are fed. LFs additionally consume electricity compared to the baseline scenario, however they allow for shorter Furnace Process time and lower temperatures LD-Converters. Generally, energy saving in LD-Converters, as the result of LFs implementation, leads to reduction of overall energy intensity and stabilization of the furnace process. Thus, out-of-furnace treatment (secondary steelmaking) of steel at LFs saves time, energy, and produces higher quality steel on a consistent basis.

The project technology also envisages that steel treated at LFs are fed into new seven-strand billet CCMs allowing direct square billet production.

This, compared to the baseline scenario, leads to lower amount of clippings and energy saving.

Construction of CCM 1 was started in August 2007 and was completed in November 2008. First commissioning casting processes on CCM 1 had been conducted during August-September and commercial operation of equipment started from the 1-st of October 2008, thereafter first volumes of square billets were produced in the fourth quarter of 2008. According to the State Committee Protocol acceptance of finished object into operation is dated 16.12.2008.

Implementation of LF 1 was started in April 2007 and was completed in June 2009 (according to the Protocol on object readiness for setting into operation dated 07.09.2009).

Implementation of CCM 3 was started in May 2009 (according to the Protocol on object readiness for setting into operation dated 28.01.2011) and was completed in January 2011.

Implementation of LF 2 was started in August 2008 (according to the Permit for construction works # 76 dated 22.08.2008) and was completed during the 1-st quarter of 2012 (the Certificate # 16412016059 dated 01.02.2012 concerning compliance of the built object).

During the considered monitoring period such facilities as CCM 1, CCM 3, LF 1 and LF 2 were operational.

During the 4th monitoring period some deviations of actual emission reductions from emission reductions estimated in PDD were observed.

According to PDD version 08, emission reductions for the monitoring period from 01/04/2012 to 30/06/2012 were expected 444 950 tonnes of CO_2 equivalent. According Monitoring Report version 2 emission reductions achieved are 345 782 tonnes of CO_2 equivalent.

The reason for this is that baseline and project line scenarios were developed according to the scenario of perspective plan of steel production growth, which unfortunately has not justified due to the crisis of 2008-2011.

The identified areas of concern as to the project implementation, project participants response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 01).

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

The monitoring occurred in accordance with 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 actual amount of total steel output in the project scenario, specific fuel and energy resources consumption in production processes, specific electricity consumption etc., influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions, such as appropriately calibrated measuring equipment, enterprise's records, national officially approved data on the emission factor for Ukrainian power grid published by National Environmental Agency of Ukraine, IPCC guidelines are clearly identified, reliable and transparent.

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

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

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 02, CAR 03, CAR 04, CAR 05).

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 monitoring of JI project indicators at DIISW is realized on regular basis where the system of data collection on fuel and energy resources consumption is being used. The data needed for the monitoring of the project is collected during the process of normal equipment use. The monitoring of the project is carried out according to standard operational practices established at the enterprise. The scheme of data collection is provided in the section 6 of the Monitoring Report.

The quality assurance procedures are based on the Plant's quality management system certified against the requirements of ISO 9001:2008 international standard. Moreover, the occupational health and safety management system in accordance with OHSAS 18001 standard and environmental management system in accordance with ISO 14001 were implemented at the Plant in 2009.

The roles and obligation within the project monitoring are presented under the section 9 of the Monitoring Report.

The function of the monitoring equipment, including its calibration status, is in order. The measurement equipment used for project monitoring is serviced, calibrated and maintained in accordance with the original manufacturer's instructions, industry standards and internal procedures; relevant records are kept as required. As to the internal procedures, the calibration and verification are regulated by internal standards of DIISW such as STP 230-35-07 Metrological Support of Measuring Equipment.

The evidence and records used for the monitoring are maintained in a traceable manner. Data is collected into electronic database of DIISW as well as in paper format. Data is further compiled in day-to-day records, quarterly records, and annual records. All records are finally stored in Planning-economic department. All necessary information for monitoring of GHGs emission reductions are stored in paper and electronic formats and will be saved till the end of the crediting period and for two years after the last operation with ERUs from the project.

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

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

The identified areas of concern as to the data management, project participants response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 06, CAR 07).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 4th verification of the "Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces" 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 the Institute for Environment and Energy Conservation 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 08. 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 2 for the reporting period indicated below. Bureau Veritas Certification confirms that the project is implemented is implemented as planned and described in approved project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emission 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 01/04/2012 to 30/06/2012

Baseline emissions	: 1 824 459	tonnes of CO_2 equivalent.
Project emissions	: 1 478 677	tonnes of CO_2 equivalent.
Emission Reductions	: 345 782	tonnes of CO_2 equivalent.

5 REFERENCES

Category 1 Documents:

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

/1/ Monitoring Report for the period from 01/04/2012 till 30/06/2012 version 1 dated 23/07/2012

/2/ Monitoring Report for the period from 01/04/2012 till 30/06/2012 version 2 dated 15/08/2012

/3/ Calculation of emission reductions for the period 01/04/2012 till 30/06/2012, Excel file

/4/ PDD "Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces", version 8 dated 12/07/2011

/5/ Determination Report "Technical Upgrade of OJSC Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky by Installation of Two Billet Continuous Casting Machines and Two Ladle Furnaces" No.UKRAINE-det/0170/2010, rev.05 of 12/07/2011 issued by Bureau Veritas Certification

/6/ Letter of Approval No. 2077/23/7 dated 08/08/2011 issued by State Environmental Investment Agency of Ukraine

/7/ Declaration of Approval ref. No 2011JI28 dated 05/07/2011 issued by NL Agency, implementing agency of the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands

Category 2 Documents:

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

№	Name of the document
1.	Certificate Series DP №16412016059 from 01.02.2012. The compliance of construction ladle furnaces №2. Inspectorate of State Architectural and Construction Control in Dnipropetrovsk region
2.	Technical report for the blast in May 2012
3.	Technical report for the blast in April 2012
4.	Technical report for the blast in June 2012
5.	Technical report sinter plant №2 April 2012
6.	Technical report sinter plant №2 in May 2012
7.	Technical report sinter plant №2 in June 2012

8.	Report on internal audits of management systems ISO 14001, OHSAS 18001 for the II quarter 2012
9.	Schedule of Internal audits QMS in 2012
10.	Report on audit of QMS on 25.06.2012
11.	Report on audit of QMS on 19.06.2012
12.	Report on air protection for the II quarter 2012
13.	Passport physical-chemical parameters of natural gas for April 2012
14.	Passport physical-chemical parameters of natural gas for May 2012
15.	Passport physical-chemical parameters of natural gas for June 2012
16.	Report on produced, transmitted and consumed active power at PJSC «Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky» in April 2012
17.	Report on produced, transmitted and consumed active power at PJSC «Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky» in May 2012
18.	Report on produced, transmitted and consumed active power at PJSC «Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky» in June 2012
19.	Resolution №164 of 12.06.2012. On the organization of technological learning
20.	Resolution №141 of 22.05.2012. On the organization of technological learning
21.	Protocol №1130 from 10.04.2012 of production and technical courses. Converter plant
22.	Protocol №1059 from 03.05.2012 of production and technical courses. Converter plant
23.	Protocol №1047 from 17.05.2012 retraining. Converter plant
24.	Protocol №737 from 20.04.2012 of production and technical courses. Converter plant
25.	Protocol №647 from 18.04.2012 retraining. Converter plant
26.	Protocol №648 from 20.04.2012 retraining. Converter plant
27.	Protocol №1171 from 24.04.2012 retraining. Converter plant
28.	Protocol №1172 from 11.05.2012 retraining. Converter plant

29.	Protocol №1173 from 22.05.2012 retraining. Converter plant
30.	List of factory trained personnel for the II quarter 2012
31.	Passport. Electricity meter ИТ №112041
32.	Passport. Electricity meter 196 №036935
33.	Passport. Electricity meter И670 №112201
34.	Passport. Electricity meter ИТ №113149
35.	Passport. Electricity meter ИТ №114308
36.	Passport. Electricity meter И670 №329704
37.	Passport. Electricity meter И670 №365746
38.	Passport. Electricity meter И670М №366162
39.	Passport. Electricity meter И670М №366527
40.	Passport. Electricity meter И670 №719571
41.	Passport. Electricity meter И670 №649492
42.	Passport. Electricity meter И670 №642969
43.	Passport. Electricity meter И670 №691911
44.	Passport. Electricity meter И670 №672417
45.	Passport. Electricity meter И670 №740734
46.	Passport. Electricity meter И670М №801579
47.	Passport. Sensor Сафір-М №02619588
48.	Passport. Sensor Сафір-М №03484802
49.	Passport. Sensor Сафір-М №03393821
50.	Passport. Sensor Сафір-М №03981694
51.	Passport. Sensor Метран-100 №135282
52.	Passport. Natural gas consumption meter Эргомер-126 №652
53.	Passport. Natural gas consumption meter ДМ №51417
54.	Passport. Scales Т675П200 №0030
55.	Passport. Scales 2372ВВ-150Е/2С №72
56.	Passport. Scales СВ150000ВМ2 №04071037
57.	Certificate №06544-5-1-26/3-ГОМС (№ 06544-5-3-158-ВЛ) (03.08.2011-03.08.2014). Area guide weight equipment shop technology for weight systems PJSC «Dniprovsky Integrated Iron and Steel Works named after Dzerzhynsky» Ministry of Industrial Policy of Ukraine

58.	Photo. Ladle Furnaces №2
59.	Photo. Scales CB150000BM2 №04071037
60.	Photo. Electricity meter LZQM №510557
61.	Photo. Electricity meter LZQM №510559

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/ Rudenko Y.R. - Head of the Laboratory of Technical Department of DIISW

/2/ Zadorskaya A.G. - Deputy Head of Production and Economic Department of DIISW

/3/ Bogdanovic I.N. - Head of the metrological laboratory of DIISW

/4/ Rod A.G. - Chief steelmaking worker of DIISW

/5/ Hyriy Y. V. – Chief sintering worker of DIISW

/6/ Turkyn M. B. – Deputy chief power engineer of DIISW

/7/ Iehorov Y. V. – Chief metrologist, Head of the control measuring equipment and facilities shop of DIISW

/8/ Motsnyi V. V. – Head of the technical department of DIISW

/9/ Shabanova I. R. – head of the personnel technical education and training department of DIISW

/10/ Bairak Y. M. – Acting head of the environmental protection service of DIISW

/11/ Seredyuk V.V. – Ecology department manager of Institute for Environment and Energy Conservation Ltd.

/12/ Linnik Y. - leading specialist of ecology department of Institute for Environment and Energy Conservation Ltd.

APPENDIX A: PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

Table 1. 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?	As to the other Party involved, although the PDD indicates it as Spain with "Endesa Carbono" company being a legal entity project participant, the written approval for the current JI project was issued by the Netherlands authorizing Endesa Carbono to participate in this Project for the purpose of article 6 of the Kyoto Protocol (Declaration of Approval ref. No 2011JI28 dated 05/07/2011 issued by NL Agency, implementing agency of the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands). This happened because of the fact that the Spanish company Endesa Carbono has its accounts in national registries of both Spain and the Netherlands.	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
Project implementation				
92	Has the project been implemented in	Construction of CCM 1 was started in August 2007 and	CAR 01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	was completed in November 2008. First commissioning casting processes on CCM 1 had been conducted during August-September and commercial operation of equipment started from the 1-st of October 2008, thereafter first volumes of square billets were produced in the fourth quarter of 2008. According to the State Committee Protocol acceptance of finished object into operation is dated 16.12.2008. Implementation of LF 1 was started in April 2007 and was completed in June 2009 (according to the Protocol on object readiness for setting into operation dated 07.09.2009). Implementation of CCM 3 was started in May 2009 (according to the Protocol on object readiness for setting into operation dated 28.01.2011) and was completed in January 2011. Implementation of LF 2 was started in August 2008 (according to the Permit for construction works # 76 dated 22.08.2008) and was completed during the 1-st quarter of 2012 (the Certificate # 16412016059 dated 01.02.2012 concerning compliance of the built object). **CAR 01.** The technical report on blast furnace shop operation for May 2012 is not signed by technical director and chief of the engineering office. Please, provide the approved information.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
93	What is the status of operation of the project during the monitoring period?	Monitoring report indicated the current status of the project activity implementation. Based on provided materials, there is known that all project equipments were operational in the reporting period.	OK	OK
Compliance with monitoring plan				
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	Yes, monitoring occurs in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and verified changes and is so listed on the UNFCCC JI website.	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?	Key factors, such as actual amount of total steel output in the project scenario, specific fuel and energy resources consumption in production processes, specific electricity consumption etc., 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. **CAR 02.** The balance between baseline emissions and project line emissions (tones CO_2) is calculated incorrectly (rounded). Please, make appropriate corrections.	CAR 02	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable	The data sources used for calculating emission reductions are clearly identified, reliable and transparent. Data sources include calibrated measuring	CAR 03	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	and transparent?	equipment, enterprise's records, IPCC etc. **CAR 03.** The internet references "9" and "13" are not working. Please, make appropriate corrections.		
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?	Emission factors used for calculating the emission reduction by the project, such as CO_2 emission factors for each fuel, reducing agent (coke, anthracite, coal electrodes), other input (limestone, dolomite, pellets) and electricity consumption, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The performed calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in accordance with the methodology and formulas provided in the approved monitoring plan. **CAR 04.** CO_2 emissions indicated in the monitoring report differentiate from CO_2 emissions indicated in the Excel-file. Please, make appropriate corrections. **CAR 05.** Please, for more accurate identification, add to the file with calculations information on the name of the project and the monitoring period.	CAR 04 CAR 05	OK OK
Applicable to JI SSC projects only				

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriate justification for the proposed revision?	ver.8 was not revised by the project participants.		
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. The monitoring of JI project indicators at DIISW is realized on regular basis where the system of data collection on fuel and energy resources consumption is being used. The data needed for the monitoring of the project is collected during the process of normal equipment use. The monitoring of the project is carried out according to standard operational practices established at the enterprise. The quality assurance procedures are based on the Plant's quality management system certified against the requirements of ISO 9001:2008 international standard. Moreover, the occupational health and safety management system in accordance with OHSAS 18001 standard and environmental management system in accordance with ISO 14001 were implemented at the Plant in 2009.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	The monitoring equipment used for project monitoring is in order; its calibration status complies with the requirements. **CAR 06.** The dates of last verification of the following equipment are not actual: - Т675 П 200 №0030 - 2372 ВВ - 150 Е/2С №72 - Сапфир-М №02619588 - Сапфир-М №03484802 - Сапфир-М №03981694 - Сапфир-М №03393821 - Метран-100 №135282 - Эргомер-126 №652 - ДМ 3583 М №51417 - И670 №192117 - ИТ №236783 In case of shift of dates of verification, please, provide documented explanation (И670 №192117, ИТ №236783). **CAR 07.** The date of the last verification of the electricity meter # 104 serial # 036935, which is “05.2012” is incorrect, and the correct one is «03.2012» (according to the passport). Please, make appropriate corrections.	CAR 06 CAR 07	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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. Data is collected into electronic database of DIISW as well as in paper format. Data is further compiled in day-to-day records, quarterly records, and annual records. All records are finally stored in Planning-economic department. The interviews conducted during site visit demonstrated that monitoring records storage time is not clearly established and known by all responsible personnel.	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
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	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	JISC of its findings in writing?			
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: − The types of JPAs; − The complexity of the applicable technologies and/or measures used; − The geographical location of each JPA; − The amounts of expected emission reductions of the JPAs being verified; − The number of JPAs for which emission reductions are being verified; − The length of monitoring periods of the JPAs being verified; and − The samples selected for prior verifications, if any?	N/a	N/a	N/a
107	Is the sampling plan ready for publication	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	through the secretariat along with the verification report and supporting 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 Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CAR 01. The technical report on blast furnace shop operation for May 2012 is not signed by technical director and chief of the engineering office. Please, provide the approved information.	92	The remark is taken into account, the approved document is provided.	CAR 01 is closed.
CAR 02. The balance between baseline emissions and project line emissions (tones CO_2) is calculated incorrectly (rounded). Please, make appropriate corrections.	95 (a)	The remark is taken into account and appropriate corrections have been done. Please, see version 2 of the MR.	CAR 02 is closed due to the amendments made in the MR.
CAR 03. The internet references "9" and "13" are not working. Please, make appropriate corrections.	95 (b)	The internet references "9" and "13" are relevant, but there can be temporary disruptions in the work of the site.	CAR 03 is closed.
CAR 04. CO_2 emissions indicated in the monitoring report differentiate from CO_2 emissions indicated in the Excel-file. Please, make appropriate corrections.	95 (d)	The remark is taken into account and appropriate corrections have been done. Please, see version 2 of the MR.	CAR 04 is closed.

CAR 05. Please, for more accurate identification, add to the file with calculations information on the name of the project and the monitoring period.	95 (d)	The remark is taken into account and appropriate corrections have been done. Please, see version 2 of the MR.	CAR 05 is closed.
CAR 06. The dates of last verification of the following equipment are not actual: - Т675 П 200 №0030 - 2372 ВВ - 150 Е/2С №72 - Сапфир-М №02619588 - Сапфир-М №03484802 - Сапфир-М №03981694 - Сапфир-М №03393821 - Метран-100 №135282 - Эргомер-126 №652 - ДМ 3583 М №51417 - И670 №192117 - ИТ №236783 In case of shift of dates of verification, please, provide documented explanation (И670 №192117, ИТ №236783).	101 (b)	The dates of verification of the following equipment are updated: - Т675 П 200 №0030 - 2372 ВВ - 150 Е/2С №72 - Сафир-М №02619588 - Сафир-М №03484802 - Сафир-М №03981694 - Сафир-М №03393821 - Метран-100 №135282 - Эргомер-126 №652 - ДМ 3583 М №51417 Please, see version 2 of the monitoring report (MR). Verification of electricity meters И670 serial №192117, ИТ serial №236783 and ИТ serial. №691814 are scheduled for the 3-rd quarter of 2012. The provided letter from DIISW which is signed by acting Chief Energy Specialist contains explanation concerning shift of dates of verification.	Based on the information received, CAR 06 is closed.

CAR 07. The date of the last verification of the electricity meter # 104 serial # 036935, which is “05.2012” is incorrect, and the correct one is «03.2012» (according to the passport). Please, make appropriate corrections.	101 (b)	The remark is taken into account and appropriate corrections have been done. Please, see version 2 of the MR.	CAR 07 is closed due to the amendments made in the MR.