DETERMINATION REPORT

GLOBAL CARBON BV

DETERMINATION OF THE BLAST FURNACE RECONSTRUCTION AT OJSC KMZ, TULA, TULA REGION, RUSSIAN FEDERATION

REPORT NO. RUSSIA-DET/0085/2010

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

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Determination Report on JI project

"Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation"

Date of first issue:	Organizational unit:
03/10/2010	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
Global Carbon BV	Mr. Lennard de Klerk

Summary:

Bureau Veritas Certification has made the determination of the "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation" project of Global Carbon BV located in the city of Tula, Tula Region, Russian Federation 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 determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the determination process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies Guidance on criteria for baseline setting and monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

In the Determination Report rev.01, Bureau Veritas Certification recommended the project for approval by the Host Party. The approval was issued by the Ministry for Economic Development of the Russian Federation by Order No 112 dated 12 March 2012. The Project Participant issued on 16 March 2012 the PDD version 2.0 which refers in Section A.5 to the received project approval. Due to the above, CAR 01 in the Determination Report rev.01 which addressed the absence of the project approval is closed and hence all implications in the Determination Report and Appendix A related to CAR 01 have become irrelevant to the approved project.

Report No.:	Subject Group:
RUSSIA-det/0082/2010	JI
Project title: "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian federation"	
Work carried out by: Vera Skitina – Team Leader, Lead verifier Andrey Rodionov - Verifier Daniil Ukhanov – Verifier	
Work verified by: Leonid Yaskin – Internal Technical Reviewer	
Work approved by: Flavio Gomes – Operational Manager	

Date of this revision:	Rev. No.:	Number of pages:
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Indexing terms:

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Abbreviations

AIE	Accredited Independent Entity
BF	Blast Furnace
BVC	Bureau Veritas Certification
CAR	Corrective Action Request
CL	Clarification Request
CO_2	Carbon Dioxide
DDR	Draft Determination Report
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
GHG	Greenhouse House Gas(es)
I	Interview
IRR	Internal Rate of Return
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
KMZ	Kosaya Gora Iron Works
MoV	Means of Verification
NPV	Net Present Value
PDD	Project Design Document
OJSC	Open Joint Stock Company
PP	Project Participant
RF	Russian Federation
tCO2e	Tonnes CO2 equivalent
UNFCCC	United Nations Framework Convention for Climate Change

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1 INTRODUCTION

Global Carbon BV (hereafter referred as 'GC') has commissioned Bureau Veritas Certification to determine its JI project "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation" (hereafter referred 'he project') located in the city of Tula, Tula Region, Russian Federation.

This report summarizes the findings of the determination 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

The determination serves as project design verification and is a requirement of all projects. The determination is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are determined in order to confirm that the project design, as documented, is sound and reasonable, and meets the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emissions reductions units (ERUs).

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

The determination is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Determination team

The determination team consists of the following personnel:

Vera Skitina
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Andrey Rodionov
Bureau Veritas Certification Climate Change Verifier

Daniil Ukhanov
Bureau Veritas Certification Climate Change Verifier

This determination report was reviewed by:

Leonid Yaskin
Bureau Veritas Certification, Internal reviewer

2 METHODOLOGY

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

In order to ensure transparency, a determination 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 determination and the results from determining the identified criteria. The determination protocol serves the following purposes:

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

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

2.1 Review of Documents

The Project Design Document (PDD) submitted by Global Carbon BV and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for users of the joint implementation project design document form, Guidance on criteria for baseline setting and monitoring, Kyoto Protocol, Clarifications on Determination Requirements to be Checked by an Accredited Independent Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Global Carbon BV revised the PDD and resubmitted it on 30/09/2010.

The determination findings presented in this report relate to the project as described in the PDD version(s) 1.6 and 1.9.

2.2 Follow-up Interviews

On 20/09/2010 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 OJSC KMZ and Global Carbon BV were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
OJSC KMZ	➢ History of the project; starting date; assessment of JI investments in 2006. ➢ Status of the projects as on today; implementation schedules; starting date of the crediting period. ➢ Check of project information and data, presented in PDD, on correspondence to Business plan, Technical projects, Research Reports, etc. ➢ Technical Report, Feasibility Study Report. ➢ Certifications/passports for the main equipment. ➢ Verification of production data, fuel and electricity data in PDD. ➢ Verification of GHGs by sources indicated in PDD. ➢ Competency and training programs for the staff. ➢ Investments efficiency according to Technical project and PDD. ➢ Monitoring system of the project. Metrology (devices, procedures). ➢ EIA of the project and other environmental permissions.
CONSULTANT Global Carbon BV	➢ Plausible baseline scenarious ➢ Additionality of the project (why it is not a baseline). ➢

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination 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 project design.

Corrective Action Request (CAR) is issued, where:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;

(b) The JI requirements have not been met;

(c) There is a risk that emission reductions cannot be monitored or calculated.

The determination team may also issue Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

The determination team may also issue Forward Action Request (FAR), informing the project participants of an issue that needs to be reviewed during 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 DETERMINATION CONCLUSIONS

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

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

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 23 Corrective Action Requests and 3 Clarification Requests.

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

3.1 Project approvals by Parties involved (19-20)

The project has no approvals by the Host Party, therefore CAR 01 remains pending.

A written project approval by the Netherlands being the sponsor Party should be provided to the AIE and made available to the secretariat by the AIE when submitting the first verification report for publication in accord-

ance with paragraph 38 of the JI guidelines. It has not been provided to AIE at the determination stage.

3.2 Authorization of project participants by Parties involved (21)

The participation for OJSC KMZ and Global Carbon BV listed as project participants in the PDD is not authorized by the Parties because the project approvals by the Parties were not received.

The authorisation is deemed to be carried out through the issuance of the project approvals.

3.3 Baseline setting (22-26)

The PDD explicitly indicates that [using a methodology for baseline setting and monitoring developed in accordance with appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline.

JI specific approach

The PDD provides a detailed theoretical description in a complete and transparent manner, as well as justification, that the baseline is established:

(a) By listing and describing the following plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one being Alternative 1:

Alternative 1: Iron plants (blast furnaces) will satisfy the remaining iron demand;

Alternative 2: Reconstruction of Blast Furnace #1 using recent achievements in this field (Project activity not implemented as JI);

Alternative 3: Reconstruction of Blast Furnace #1 without using contemporary achievement in this field.

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

a. Main development goal of metallurgical industry is reducing of home metal demand. OJSC "KMZ" does not have any obligations for iron capacity construction;

b. It is reasonably assumed that the level of iron production and demand are not influenced by the project. The iron industry is a

transparent market where standardized types of iron products exist. Within a certain region or country iron can be transported from the producer to the consumer without constrains. If the facility in question cannot provide the amount of iron that is needed third party iron producer would have produced the displacing part. In case of the project absence and increased market iron demand, other iron producer can produce displacing part of requested steel by increasing the number of run-days, decreasing duration of stops or new capacities installation. The incremental capacity emissions are determined in line with the methodological approach as described in PDD Annex 2;

c. Capital is available but high bank rate and high country investment risk make unprofitable of new equipment introduction in Russia. Also the capital outflow was at the end of 2008;
d. Pig iron production process by BF is well known and applied in Russia;
e. Natural gas and coke are widely used and available in Russia. All of them are produced locally. Fuel prices in Russia are less than world market's prices.
f. Electricity to cover any industry demand is available in Russia.

3.4 Additionality (27-31)

The most recent version 05.2 of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board is used to demonstrate additionality. All explanations, descriptions and analyses are made in accordance with the selected tool or method.

Additionality is demonstrated appropriately by providing the proofs as follows:
the benchmark analysis and sensitivity analysis have shown that the project's IRR is well below the substantiated benchmark;
the common practice analysis has shown that the proposed JI project does not represent a widely observed practice in the geographical area concerned.

3.5 Project boundary (32-33)

JI specific approach

The project boundary defined in the PDD, which is on Figure B.3.1, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

Under the control of the project participants such as;
a. The sources of GHG emissions during the pig iron production:

Emission from the raw materials (limestone, dolomite, coke) during the steelmaking process;
Fuel (natural gas) combustion;
GHG emissions from the Russian electricity grid;
Production of raw material (coke, pellet, sinter);
Blast furnace gas post-combustion in preheater.
b. The sources of GHG emission not connected with the iron production:
Blast furnace gas combustion outside the plant site.

Reasonably attributable to the project (see item i); and

(iii) Significant, i.e., as a rule of thumb, would by each source account on average per year over the crediting period for more than 1 per cent of the annual average anthropogenic emissions by sources of GHGs, or exceed an amount of 2,000 tonnes of CO2 equivalent, whichever is lower.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD

The AIE determined the project boundary by:
a) Assessment of documentation ref. /22-26/.
b) Observations of the physical site and equipment during the site visit undertaken.

Based on the above assessment, the AIE hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity.

3.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began, and the starting date is 12/03/2010 when the contract was signed for equipment delivery, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 20 years and 240 months.

The PDD states the length of the crediting period in years and months, which is 2,87 years and 34,36 months, and its starting date as 18/02/2010, which is on the date the first emission reductions or enhancements of net removals are generated by the project.

3.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach was the selected approach.

JI specific approach

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as:

- annual production of slug, pellets, and coke;
- annual consumption of natural gas, coke, briquettes, and electricity.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. be clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions to be monitored, such as those listed in PDD Sections D.1.1.1 and D.1.1.3. The indicators include in particular annual and/or specific production and consumption of relevant items, related emission factors, net caloric values of fuel, and content of relevant chemical substances.

The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC, as appropriate (project and baseline emissions and their components, and relevant CO2 emission factors).

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination, such as:

- emission factor of natural gas and fuels,
- specific fuel consumption due to pellet production
- carbon content in coke,
- default emission factor of coke production,
- net caloric value of natural gas, coke and fuels,
- molar weights

(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination, such as:

- foundry iron emission factor for Russia,
- steelmaking iron emission factor for Russia,
- standardized CO2 emission factor of the relevant regional electricity grid.

(iii) Data and parameters that are monitored throughout the crediting period, such as annual production of slug, pellets, and coke, annual consumption of natural gas, coke, briquettes, and electricity as well as CaO and MgO content in slag.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as weighting of materials consumption by strain-gauge, metering of fuel, gas and electricity consumption gas and fuel and met, laboratory measurements of content of relevant chemical substances.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals such as those straightforward formulae provided in PDD Sections D.1.1.2 and D.1.1.4, the latter with reference to Annex 2.

The monitoring plan presents the quality assurance and control procedures for the monitoring process. This includes information on calibration and on how records on data and/or method validity and accuracy are kept.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. Responsibilities concern inter alia data collection, log keeping, data storing, records checks, emission reduction calculation, and monitoring report.

On the whole, the monitoring report reflects good monitoring practices appropriate to the project type.

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (IPCC and LLC Korporatsiya proizvoditeley chernih metalov annual statistical report "Russian Chermet information") but not including data that are calculated with equations

The monitoring plan indicates that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project. It is defined that the data will be archived in electronic and paper form.

3.8 Leakage (40-41)

JI specific approach

The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains that the sources of leakage can be neglected, such as energy and fuel consumption. Therefore estimated leakages are neglected by applied conservative method of ER calculation.

3.9 Estimation of emission reductions or enhancements of net removals (42-47)

JI specific approach

The PDD indicates the assessment of emissions in the baseline scenario and in the project scenario as the approach chosen to estimate the emission reductions generated by the project.

The PDD provides the ex ante estimates of emission reductions from the project (within the project boundary), which are 587,272 tons of CO2eq for the crediting period;

The estimates referred to above are given:

(a) On an annual basis;

(b) From 18/02/2010 to 31/12/2012 covering the whole crediting period;

(c) On a source-by-source basis;

(d) For CO2 as the only GHG emitted.

(e) In tonnes of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol;

The formulae used for calculating the estimates referred above, which are Formulae (1) – (10) in PDD Section D, are consistent throughout the PDD.

For calculating the estimates referred to above, key factors defined in the monitoring plain influencing the project and baseline emissions were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as IPCC and LLC "Korporatsiya proizvoditeley chernih metalov" annual statistical report "Russian Chermet information " are clearly identified, reliable and transparent.

Emission factors, such as those mentioned in Section 3.7 above were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The estimation referred to above is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The estimates referred to above are consistent throughout the PDD.

The annual average of estimated emission reductions over the crediting period is calculated by dividing the total estimated emission reductions over the crediting period by the number of months of the crediting period, and multiplying by twelve.

The PDD Section E includes an illustrative ex ante emissions calculation.

3.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as the Federal Laws # 174"On the Environmental Expertise" and # 190 "The Construction Code of RF".

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.

Section "Environment Protection" as part of the project Design Documentation obtained a positive conclusion by the Main Agency of the State expertise. According to Section "Environment Protection" of the Design Documentation, the project does not have any transboundary environmental impacts.

3.11 Stakeholder consultation (49)

Stakeholder consultation was not undertaken as it is not mandatory under Russian legislation.

3.12 Determination regarding small scale projects (50-57) (Not applicable)

3.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64) (Not applicable)

3.14 Determination regarding programmes of activities (65-73) (Not applicable)

4 SUMMARY AND REPORT OF HOW DUE ACCOUNT WAS TAKEN OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES

No comments, pursuant to paragraph 32 of the JI Guidelines, were received

5 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation" Project. The determination 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 determination consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

Project participant/s used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides investment analysis and common practice analysis to determine that the project activity itself is not the baseline scenario.

Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 1.9 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation (Version 1.9) and the subsequent follow-up interviews have provided Bureau Veritas Certification with

sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

The determination is based on the information made available to us and the engagement conditions detailed in this report.

6 REFERENCES

Category 1 Documents:
Documents provided by Global Carbon BV that relate directly to the GHG components of the project.

/1/ PDD "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation", Versions 1.6 - 1.9.
Supporting documentation (final)
a. 20100923_CF_Kosogorskiy
b. 20100927_ER_Kosogorskiy

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

/1/ JI Guidelines.

/2/ Guidelines for Users of the JI PDD Form (Version 04), JISC.

/3/ Guidance on Criteria for Baseline Setting and Monitoring (Version 02), JISC

/4/ Tool for the demonstration and assessment of additionally (Version 05.2), CDM – Executive Board.

/5/ "Strategy of metal industry development in Russia till 2020" http://www.minprom.gov.ru/activity/metal/strateg/2.

/6/ Consumption of raw material and fuel for 2010

/7/ Conclusion of expertise about safe operation of BF #1 for 2008

/8/ Conclusion of "Glavgosexpertiza" #212 for capital construction of BF #1, 2009

/9/ Permission of "Rostechnadzor" # 53 P for harmful substances emission from March 12 2009 to March 12, 2010

/10/ Official letter #16-1803 from OJSC KMZ to Paul Wurth, 2009

/11/ Table of shipment of goods to customers with pig iron price, March 2008

/12/ Article of newspaper "Kosogorets" about BF #1 implementation after capital repair, February 2010

/13/ Official letter #04-2/25 from OJSC KMZ to Sberbank about Investment credit, 2009

/14/ Office memo to Director about resources of finance, 2008

/15/ Cost calculation of steelmaking pig iron, March 2008
/16/ Cost calculation of foundry iron, March 2008
/17/ Passport of bunker scale KI7450-01, 2009
/18/ Passport of bunker scale KI7450-02, 2009
/19/ Passport of bunker scale KI7450-03, 2009
/20/ Program of training, Introduction into BLT Equipment for BF # 1
/21/ Official letter #16-2108 from OJSC KMZ to OJSC MMK about training, 2009
/22/ Program of training "Theoretical and Practical aspects of BLT Equipment using" in Institute "MISIS", 2009
/23/ Order #37 about precommissioning of BF #1 after capital repair, 2010
/24/ Article "Main high-tech solutions during BF#1 reconstruction in OJSC KMZ", congress of steelmakers
/25/ Technical report for 2008
/26/ Plan of steelmaking and foundry pig iron production in OJSC KMZ, 2010

Persons interviewed:

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

/1/ V. Gubanov – OJSC KMZ, Chairman of Board of Directors
/2/ I. Shepetovskii – OJSC KMZ, Head of Technical Department
/3/ E. Piatigorov – OJSC KMZ, Councillor of Directors
/4/ M. Butyaykin - Global Carbon BV, Project Manager

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APPENDIX A: COMPANY JI PROJECT DETERMINATION PROTOCOL

Table 1 Mandatory Requirements for Joint Implementation (JI) Project Activities

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
1. The project shall have the approval of the Parties involved.	Kyoto Protocol Article 6.1 (a)	CAR 01. The project has no approval of the Host Party. Verifiers' Note: JISC Glossary of JI terms/Version 02 defines the following: a) At least the written project approval(s) by the host Party(ies) should be provided to the AIE and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication in accordance with paragraph 34 of the JI guidelines; (b) At least one written project approval by a Party involved in the JI project, other than the host Party(ies), should be provided to the AIE and made available to the secretariat by the AIE when submitting the first verification report for publication in accordance with paragraph 38 of the JI guidelines, at the latest.	Table 2, Section A.5.
2. Emission reductions, or an enhancement	Kyoto Protocol	OK	Table 2, Section

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
of removal by sinks, shall be additional to any that would otherwise occur.	Article 6.1 (b)		B.2
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7.	Kyoto Protocol Article 6.1 (c)	OK	N/A
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3.	Kyoto Protocol Article 6.1 (d)	OK	N/A
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects.	Marrakech Accords, JI Modalities, §20	OK	The Russian national focal point is the Ministry of Economic Development. The Russian national guidelines and procedures are established by the "Regulation of realization of Article 6 of Kyoto Protocol to United Nation Framework Convention on Climate Change". Approved by the RF Govern-

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
			ment Decree # 843 of 28/10/2009 “About measures on realization of Article 6 of Kyoto Protocol to United Nation Framework Convention on Climate Change”. The national focal point of the Netherlands is Ministry of economic affairs SenterNovem. National guidelines and procedures for approving JI projects: Netherlands National Guidelines and Procedures for Approving Article 6 Projects, Including the Considerations of Stakeholders.
6. The host Party shall be a Party to the Kyoto Protocol.	Marrakech Accords, JI Modalities, §21(a)/24	OK	Russia has ratified the Kyoto Protocol by Federal Law N

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
			128-ФЗ dated 04/11/04.
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts.	Marrakech Accords, JI Modalities, §21(b)/24	OK	The Russian Federation's assigned amount has been calculated and recorded In the 5th National Communication dated 12/02/10.
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4.	Marrakech Accords, JI Modalities, §21(d)/24	OK	Russian Federation has established the GHG Registry by the RF Government Decree N 215-p dated 20/02/06.
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination.	Marrakech Accords, JI Modalities, §31	OK	Global Carbon BV (PDD developer) has submitted a PDD Version 1.6 dated August 17, 2010 to Bureau Veritas Certification, which contains all information needed for determination.

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
10. The project design document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments.	Marrakech Accords, JI Modalities, §32	OK	The PDD was made publicly available for comments on UNFCCC JI website from 19 August 2010 till 17 September 2010.
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the host Party, an environmental impact assessment in accordance with procedures as required by the host Party shall be carried out.	Marrakech Accords, JI Modalities, §33(d)	OK	Table 2, Section F
12. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
13. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.1
14. The baseline methodology shall exclude to	Marrakech Accords,	OK	Table 2, Section

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
earn ERUs for decreases in activity levels outside the project activity or due to force majeure.	JI Modalities, Appendix B		B.2
15. The project shall have an appropriate monitoring plan.	Marrakech Accords, JI Modalities, §33(c)	OK	Table 2, Section D
16. A project participant may be: (a) A Party involved in the JI project; or (b) A legal entity authorized by a Party involved to participate in the JI project.	JISC “Modalities of communication of Project Participants with the JISC” Version 01, Clause A.3	The Russian project participant will be authorised by the Host Party through the issuance of the approval for the project. Conclusion is pending a response to CAR 01. Refer to Verifiers’ Note in 1 above.	Table 2, Section A

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of the project					
A.1 Title of the project					
A.1.1. Is the title of the project presented?	1,2	DR	The title of the project is: "Blast Furnace reconstruction at OJSC KMZ, Tula, Tula Region, Russian Federation".		OK
A.1.2. Is the current version number of the document presented?	1,2	DR	The PDD Version 1.6 was made publicly available for comments on UNFCCC JI website from 19 August 2010 till 18 September 2010.		OK
A.1.3. Is the date when the document was completed presented?	1,2	DR	PDD Version 1.9 dated 30 September 2010 (published). PDD Version 1.9 dated 30 September 2010 (final) .		OK

A.2. Description of the project					
A.2.1. Is the purpose of the project included?	1,2	DR	The purpose of the proposed project is the reconstruction of Blast Furnace (BF) #1 at OJSC KMZ with application of contemporary technologies and equipment developed in last decades for blast furnace iron making. The project aims implementation of high technologies, equipment, materials: installation of bell less top charging device with rotating chute; installation of tapping equipment with hydraulic drive; castable lining of runner system; application of modern refractories for blast furnace lining. Iron production is a highly energy intensive process. Coke is used as a fuel and generates reducing atmosphere in BF. Thus iron production is connected with significant GHG emissions due to technological process. Emissions of GHGs are planned to be reduced significantly as the result of the project implementation. The history of the project and the situation existing prior to the starting date of the project, baseline scenario, project scenario are summarized in Section A.2. **CAR 02.** Please briefly summarise the history of the project (including its JI component). **CAR 03.** In Section A.2 there is statement:	CAR 02 CAR 03	OK OK

			"Coke (carbon) is used as fuel and generates reducing atmosphere in BF". This is erroneous as coke and carbon are different things. Please take note: throughout PDD these two concepts are mixed (especially in Section A.4.3). Such things can't be accepted by verifier.		
A.2.2. Is it explained how the proposed project reduces greenhouse gas emissions?	1,2	DR	Eexplanation of how the proposed project reduces greenhouse gas emissions is provided in Section A.4.3.1 of the PDD. **CAR 04.** PDD, Section A.2 reads:" In general iron making plants are using sinter as a base additive which includes slag forming materials (CaO and MgO). Sinter production is connected with significant fuel consumption (about 50 kg of coke per tonne of sinter). KMZ does not use sinter …" but PDD developer doesn't explain how implemented new equipment associated with not using sinter in the blast furnace #1. **CL 01.** Please clarify whether sinter was used or not in the blast furnace #1 before reconstruction.	CAR 04 CL 01	OK OK
A.3. Project participants					
A.3.1. Are project participants and Party(ies) involved in the project listed?	1,2	DR	Party A is the Russian Federation. Project participant for the Party A is OJSC KMZ.		OK

			Party B is the Netherlands. Project participant from the Party B is Global Carbon BV.		
A.3.2. The data of the project participants are presented in tabular format?	1,2	DR	The data is presented in the tabular format as per [2].		OK
A.3.3. Is contact information provided in Annex 1 of the PDD?	1,2	DR	The contact information about the project participants is provided in PDD Annex 1.		OK
A.3.4. Is it indicated, if it is the case, if the Party involved is a host Party?	1,2	DR	It is indicated that the Russian Federation is the host Party.		OK
A.4. Technical description of the project					
A.4.1. Location of the project activity					
A.4.1.1. Host Party(ies)	1,2	DR	The Russian Federation is indicated as the host Party in PDD Section A.4.1.1.		OK
A.4.1.2. Region/State/Province etc.	1,2	DR	Tula region is situated in the centre of the European part of Russia, in the Central Russian Upland in the steppe and forest-steppe zones. It borders Moscow region in the North and North-east, Ryazan region in the East, Lipetsk region in the South, Orel region in the South and South-east and Kaluga region in the West and North-west.		OK
A.4.1.3. City/Town/Community etc.	1,2	DR	Tula is the capital of Tula oblast. It is located in Western Russia, on the Upa river, 193 kms South of Moscow.		OK
A.4.1.4. Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	1,2	DR	OJSC KMZ site (Kosaya Gora) is located at the south outskirts of Tula City, 10 kilometers from centre. The site coordinates are:		OK

			37.563801 E longitude, 54.125739 N latitude (by the program Google Earth).		
A.4.2. Technology(ies) to be employed, or measures, operations or actions to be implemented by the project					
A.4.2.1. Does the project design engineering reflect current good practices?	1,2	DR	The project design engineering reflects current good practices. Proposed JI project aims at renovation of BF using three types of modern energy-efficient technologies: installation of bell less top charging device with rotating chute, castable lining of runner system, application of modern refractories for blast furnace lining. Realization of BF #1 modernization will allow to intensify process and reduce energy consumption during iron production at OJSC KMZ.		OK
A.4.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2	DR	Yes, the project is state-of-the art.		OK
A.4.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2	DR	The project technology is unlikely to be substituted by other or more efficient technologies within the project period.		OK
A.4.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1,2	DR	**CAR 05.** Maintaining staff of bell less top charging device with rotating chute must have special trainings. This should be indicated in PDD.	CAR 05	OK

A.4.2.5. Does the project make provisions for meeting training and maintenance needs?	1,2	DR	Conclusion is pending a response to CAR 05.	Pending	OK
A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances					
A.4.3.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	1,2	DR	PDD, Section A.2 reads: "The project aims implementation of high technologies, equipment, materials: - Installation of bell less top charging device with rotating chute; - Installation of tapping equipment with hydraulic drive; - Castable lining of runner system; - Application of modern refractory for blast furnace lining. PDD, Section A.4.3 reads: "Iron production is connected with significant CO2 emission. The main benefit of BF#1 reconstruction is application of non-fluxed iron-bearing raw materials and modern equipment installation. It reduces carbon consumption during pig iron and raw material production". **CAR 06.** PDD doesn't explain how the implemented new technologies, equipment and materials associated with consumption of coke in blast furnace #1 are connected with reduction	CAR 06	OK

			of GHG emission.		
A.4.3.2. Is it provided the estimation of emission reductions over the crediting period?	1,2	DR	The estimated GHG emission reduction is 587,272 tCO2e over the crediting period 2010 - 2012. Refer to Section A.4.3.1.		OK
A.4.3.3. Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	1,2	DR	The estimated annual emission reduction is 195,757 tCO2e. Refer to Section A.4.3.1.		OK
A.4.3.4. Are the data from questions A.4.3.2 and A.4.3.3 above presented in tabular format?	1,2	DR	The data is presented in the required tabular format. Refer to the Table in PDD Section A.4.3.1.		OK
A.5. Project approval by the Parties involved					
A.5.1. Are written project approvals by the Parties involved attached?	1,2	DR	Conclusion is pending a response to CAR 01.	Pending	OK
B. **Baseline**					
B.1. Description and justification of the baseline chosen					
B.1.1. Is the chosen baseline described?	1,2	DR	The baseline is identified as "Iron plants (blast furnaces) will satisfy the remaining iron demand". PDD states: "The displacing production of about 0.7 million tonnes of pig iron will be covered by other (new and/or existing) iron plants (blast furnaces). Increase in production will be possible due to increase of existing plants load. Reconstruction/modernization is not being implemented under this scenario. There are no legal or other requirements that enforce other pig iron producers to stop iron-making. No additional investment is required."	CAR 07 CAR 08	OK OK

			CAR 07. The last sentence: "No additional investment is required" is questionable and should be justified as it means that necessary pig iron (for KMZ) will be provided by other steel plants free of charge. Anyway "displacing production" will cost more than to produce pig iron for KMZ by itself. Moreover, dismantling of the Blast Furnace (as presumed by baseline) needs considerable investments. **CAR 08.** In PDD, Section B.1, page 15, alternative 3 "Reconstruction of Blast Furnace #1 is being done without using contemporary achievement in this field" there is statement: "Moreover, this scenario is not conservative in terms of greenhouse gas emissions". Please justify this statement.		
B.1.2. Is it justified the choice of the applicable baseline for the project category?	1,2,3	DR	It is explicitly indicated that a JI specific approach regarding baseline setting is applied developed in accordance with Appendix B of the JI Guidelines. PDD states that baseline is identified by listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one. Three possible alternatives for baseline scenario were identified, described, and assessed: 1. Iron plants (blast furnaces) will satisfy the remaining iron demand. 2. Reconstruction of Blast Furnace #1 using	CAR 09	OK

			recent achievements in this field (Project activity not implemented as JI). 3. Reconstruction of Blast Furnace #1 without using contemporary achievement in this field. After the assessment of the alternative scenarios, only Scenario 1 was left as "only remaining plausible scenario". Scenario 2 was excluded as very expensive and thus "cannot be considered as plausible scenario". Scenario 3 was excluded as unreasonable. PDD states: "it would be unreasonable to invest in outdated equipment". And it was made the conclusion: "Thus this scenario cannot be considered as a plausible scenario." In conclusion it was stated: "Scenario 1 is the only remaining plausible scenario and is therefore identified as the baseline." **CAR 09.** Baseline setting contradicts the proposed specific approach for choosing the baseline. Approach presumes "listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one". But listed scenarios (except Scenario 1) by virtue of analysis turn out "not plausible". And only scenario 1 was assessed as plausible. The most plausible sce-		

			nario is absent at all. Conclusion concerning baseline identification is not grounded. Please take note: Verifier cannot accept such inaccurate apply of approach chosen regarding baseline setting. PDD developer should accurately apply chosen approach.		
B.1.3. Is it described how the methodology is applied in the context of the project?	1,2	DR	A theoretical description of the baseline is provided in PDD Section D.1.1.4 and Annex 2.		OK
B.1.4. Are the basic assumptions of the baseline methodology in the context of the project activity presented (See Annex 2)?	1,2, 4	DR	Basic assumptions of the baseline methodology presented in Section D.1.1.4. and Annex 2 are as follows: Baseline emissions have one source – production of iron by other iron producers (displacing production). Baseline emissions consist of two parts: - Baseline emissions from foundry iron production; - Baseline emissions from steelmaking iron production; Baseline emissions are calculated on the basis of emission factor for displacing foundry pig iron production and emission factor for displacing steelmaking pig iron production. Emission factors due to displacing pig iron (foundry and steelmaking) production are calculated with the use of the approach resembling the "Tool to calculate the emission factor for an electricity system" (version 02).		OK

			The above approach envisages the calculation of Operating Margin (emission factor for the all plants) and Build Margin (emission factor for the new ones). These two factors are used to calculate Combined Margin factor. Verifiers observe that the use of Build Margin is inappropriate for the pig iron production as it was developed for the electricity emission factor calculation and was designed to reflect dispatch of electric energy within united energy systems. Pig iron production is not controlled by any dispatch center and steel plants work autonomously. So it is more appropriate for the steel emission factor to use only Operation Margin without taking into account Build Margin. Anyway in PDD Build Margin is taken as zero.		
B.1.5. Is all literature and sources clearly referenced?	1,2	DR	Generally literature and sources are presented. **CAR 10.** Section B. shall contain all key elements of the baseline. Please indicate in tables at the end of section B.1 and tables in Annex 2 all the parameters used for baseline emission factor calculation, such as slag production, content of CaO and content of MgO, etc. Please take note: these parameters should be included in monitoring of baseline emissions.	CAR 10	OK
B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced be-					

low those that would have occurred in the absence of the JI project					
B.2.1. Is the proposed project activity additional?	1,2,3	DR	To prove the project additionality the "Tool for the demonstration and assessment of additionally" (Version 05.2) [3] was used. At Step 1a, 3 alternative scenarios were listed: Alternative 1: Continuation of the current situation; Alternative 2: The proposed project activity undertaken without being registered as a JI project activity; Alternative 3: Reconstruction of Blast Furnace #1 is being done without using contemporary achievement in this field; At Step 1b it is concluded that all scenarios are consistent with mandatory laws and regulations of the Russian Federation. For Alternative 2 (project without JI registration) benchmark analysis was applied, followed by sensitivity analysis. It is shown that the project activity is not economically and financially attractive. **CAR 11.** Titles of Alternatives in Section B.2 and in Section B.1 differ. Moreover, Alternative 1 (set as the baseline) is titled "Continuation of the current situation". This is incorrect as situation without BF#1 was a consequence of pro-	CAR 11 CAR 12 CAR 13 CAR 14 CL 02	OK OK OK OK OK

			ject scenario start. Inherently, this Alternative is a part of Alternative 1 (proposed project activity). **CAR 12.** Please provide the sources of the input data for the costs and tariffs used in investment analysis. **CAR 13.** Please provide in the course of sensitivity analysis performing not only Scenario 3, but also Scenario 2 and Scenario 1 calculation in spreadsheet "20100812_ CF_Kosogorsky". Step 3, barrier analysis, was not conducted, as envisaged by [3]. At Step 4, the common practice analysis was conducted. **CAR 14.** PDD, Section B.2, page 22, common practice analysis reads:" In Russia the majority of blast furnaces were constructed before 1990, before the USSR disintegration. Metallurgical industry of Russia in the 90-ies of the XX century was working in the conditions of the systemic crisis of economy…" and PDD developer doesn't said about where and when similar equipment, materials and technology were used. Please provide an analysis of any other activities that are operational and that are similar to the proposed project activity. **CL 02.** Please explain why values of steelmaking and foundry iron price are lower than their		

			costs so it means that the factory operates at a loss. With the unresolved CAR 12, CAR 13 and CAR 14 the additionality of the project activity is not demonstrated.		
B.2.2. Is the baseline scenario described?	1,2	DR	The baseline scenario is described in PDD Sections A.2 and B.1.		OK
B.2.3. Is the project scenario described?	1,2	DR	The project scenario is described in PDD Sections A.4.2 and A.4.3.		OK
B.2.4. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?	1,2	DR	Conclusion is pending a response to CAR 06	Pending	OK
B.2.5. Is it demonstrated that the project activity itself is not a likely baseline scenario?	1,2	DR	Conclusion is pending a response CAR 12, CAR 13, CAR 14 and CL 02.	Pending	OK
B.2.6. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	1,2,5	DR	National policies and circumstances relevant to the baseline of the proposed project activity were summarized. Project developer described baseline is in accordance with "Strategy of metal industry development in Russia till 2020".		OK
B.3. Description of how the definition of the project boundary is applied to the project activity					
B.3.1. Are the project's spatial (geographical) boundaries clearly defined?	1,2	DR	The description of project boundaries is provided. So project boundaries are defined on the Figure B.3.1. Also in B.3 is provided explanation of which gases and from what sources were taken into consideration (Table	CL 03 CAR 15	OK OK

			B.3.1 Sources of emissions). **CL 03.** In accordance with common practice for BLT charger working, it is needed to use nitrogen. Nitrogen is produced with the consumption of electricity. Please clarify, whether nitrogen is used for BLT charger working, and if yes, why PDD developer doesn't take it into account? **CAR 15.** Please include in Table B.3.1 gases (CH4 and N2O) that was excluded from the consideration due to their small volume of emissions (see the description in section D.1).		
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline					
B.4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?	1,2	DR	Date of completion of the baseline study: 17th of May 2010.		OK
B.4.2. Is the contact information provided?	1,2	DR	Mikhail Butyaykin Global Carbon BV Phone: +31 30 850 6724 Fax: +31 70 891 0791 Email: butyaykin@global-carbon.com.		OK
B.4.3. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2	DR	It is indicated that Global Carbon BV is a project participant.		OK
***C.* Duration of the project and crediting period**					
C.1. Starting date of the project					

C.1.1. Is the project's starting date clearly defined?	1,2	DR	Project start date is 12 March 2008. This is day when the supply agreement of implemented equipment was signed.		OK
C.2. Expected operational lifetime of the project					
C.2.1. Is the project's operational lifetime clearly defined in years and months?	1,2	DR	The operational lifetime of the project is 20 years or 240 months.		OK
C.3. Length of the crediting period					
C.3.1. Is the length of the crediting period specified in years and months?	1,2	DR	Start of the crediting period: 18/02/2010 Length of the crediting period: 2.92 years or 35 months. **CAR 16.** Since the start of the crediting period is 18/02/2010 the length of the crediting period is less than 2.92 years or 35 months.	CAR 16	OK
***D.* Monitoring Plan**					
D.1. Description of monitoring plan chosen					
D.1.1. Is the monitoring plan defined?	1,2	DR	It is explicitly indicated that a JI specific approach regarding monitoring is applied in accordance with Appendix B of the JI Guidelines.		OK
D.1.2. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario.	1,2	DR	Option 1 is chosen.		OK
D.1.3. Data to be collected in order to monitor emissions from the project, and how these data will be archived.	1,2	DR	Data to be collected in order to monitor emissions from the project are defined in PDD Section D.1.1.1. Data to be collected for estimated: - emissions due to raw materials decarburiza-	CAR 17	OK

			tion (limestone and dolomite) in year y (tCO2); - emissions due to pellet production (fuel consumption) in year y (tCO2); - emissions due to natural gas combustion in year y (tCO2); - emissions due to coke burning and production in year y (tCO2); - emissions due to electricity consumption in year y (tCO2); - emissions that are not connected with project (burning of blast furnace gas (only CO) in boiler) in year y (tCO2). It is defined that the data will be archived in electronic and paper form. **CAR 17.** Earlier in Section A.2 PDD developer said that the plant doesn't use sinter in BF#1. Please justify that the plant won't use sinter in BF#1 in the course of project realization (project scenario).		
D.1.4. Description of the Formulae used to estimate project emissions (for each gas, source etc.; emissions in units of CO2 equivalent).	1,2	DR	These are formulae (1) - (7) presented in PDD Section D.1.1.2.		OK
D.1.5. Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected and ar-	1,2	DR	Data to be collected in order to monitor baseline emissions are defined in PDD Section D.1.1.3. Data to be collected for estimated:		OK

chived.			- displacing foundry iron production in the baseline scenario in year y (tonnes); - emission factor for displacing foundry pig iron production in year y (tCO2/t of foundry pig iron); - displacing steelmaking iron production in the baseline scenario in year y (tones); - emission factor for displacing steelmaking pig iron production in year y (tCO2/t of steelmaking pig iron).		
D.1.6. Description of the Formulae used to estimate baseline emissions (for each gas, source etc, emissions in units of CO2 equivalent).	1,2	DR	These are formulae presented in PDD Section D.1.1.4. and in Annex 2. **CAR 18.** Annex 2 provides calculation of BEF for incremental production under the baseline scenario. Presented formula (2) is incorrect because it contains the data of CaO and MgO content in BF#1 slag. These data are not associated with estimated baseline emissions.	CAR 18	OK
D.1.7. Option 2 – Direct monitoring of emissions reductions from the project (values should be consistent with those in section E)	1,2	DR	Not applicable.		OK
D.1.8. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived.	1,2	DR	Not applicable.		OK
D.1.9. Description of the Formulae used to calculate emission reductions from the project (for each	1,2	DR	Not applicable.		OK

gas, source etc; emissions/emission reductions in units of CO2 equivalent).					
D.1.10. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project.	1,2	DR	Not applicable.		OK
D.1.11. Description of the Formulae used to estimate leakage (for each gas, source etc,; emissions in units of CO2 equivalent).	1,2	DR	In the baseline scenario energy and fuel consumption (natural gas, electricity) is bigger than in project scenario. Therefore estimated leakages are neglected by applied conservative method of ER calculation. **CAR 19.** Please justify that in the baseline scenario energy and fuel consumption is bigger than in project scenario.	CAR 19	OK
D.1.12. Description of the Formulae used to estimate emission reductions for the project (for each gas, source etc.; emissions in units of CO2 equivalent).	1,2	DR	This is the Formula (9): $ER_y = BE_y – PE_y$. Refer to PDD Section D.1.4.		OK
D.1.13. Is information on the collection and archiving of information on the environmental impacts of the project provided?	1,2	DR	Information on the collection of information on the environmental impacts of the project is provided in PDD Section D.1.5.		OK
D.1.14. Is reference to the relevant host Party regulation(s) provided?	1,2	DR	Reference to relevant Russian regulations is provided. These are: - Federal law of Russian Federation "On Environmental Protection" (10 January 2002, N 7-FZ); - Federal law of Russian Federation "On Air Protection" (04 May 1999, N 96-FZ);		OK
D.1.15. If not applicable, is it stated so?	1,2	DR	The regulations are referenced.		OK

D.2. Qualitative control (QC) and quality assurance (QA) procedures undertaken for data monitored					
D.2.1. Are there quality control and quality assurance procedures to be used in the monitoring of the measured data established?	1,2	DR	QC and QA procedures are described in PDD Section D.2.		OK
D.3. Please describe of the operational and management structure that the project operator will apply in implementing the monitoring plan					
D.3.1. Is it described briefly the operational and management structure that the project participants(s) will implement in order to monitor emission reduction and any leakage effects generated by the project	1,2	DR	The operational and management structure in implementing the monitoring plan and the allocation of responsibilities for monitoring plan implementation and monitoring report preparation is presented in PDD Section D.3 Figure D.3.1.		OK

D.4. Name of person(s)/entity(ies) establishing the monitoring plan					
D.4.1. Is the contact information provided?	1,2	DR	OJSC KMZ, Mr. Igor Shepetovsky, Head of Technical Department Phone: +7 4872 243508 Fax: +7 4872 243336 E-mail: ironis@kmz.tula.net Global Carbon BV, Mr Mikhail Butyaykin, JI Consultant Phone: +31 30 850 6724 Fax: +31 70 891 0791 E-mail: butyaykin@global-carbon.com		OK
D.4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2	DR	It is indicated that OJSC KMZ and Global Carbon BV are project participants.		OK
***E.* Estimation of greenhouse gases emission reductions**					
E.1. Estimated project emissions					
E.1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due to the project?	1,2	DR	The description of formulae used to estimate project emissions is presented in PDD Section D.1.1.2. **CAR 20.** Please justify in the calculations (spreadsheets) the increase of steelmaking pig iron production value in 2011. **CAR 21.** Please justify in the calculations (spreadsheets) the understatement of lime-stone, dolomite and coke consumption values in 2010-2011.	CAR 20 CAR 21	OK OK

E.1.2. Is there a description of calculation of GHG project emissions in accordance with the Formula specified in for the applicable project category?	1,2	DR	The estimated project emissions for each source of emissions are presented in PDD Section E.1 Table E.1.1. **CAR 22.** Project calculations should be corrected as emissions were calculated for the whole year 2010, but the crediting period started only from 18/02/2010.	CAR 22	OK
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1,2	DR	There is no explicit indication that conservative assumptions were made.		OK
E.2. Estimated leakage					
E.2.1. Are described the Formulae used to estimate leakage due to the project activity where required?	1,2	DR	Not applicable. Refer to D.1.11.		OK
E.2.2. Is there a description of calculation of leakage in accordance with the Formula specified in for the applicable project category?	1,2	DR	Not applicable.		OK
E.2.3. Have conservative assumptions been used to calculate leakage?	1,2	DR	Not applicable.		OK
E.3. The sum of E.1 and E.2.					
E.3.1. Does the sum of E.1. and E.2. represent the project activity emissions?	1,2	DR	As no leakage is expected, E1+E2=E1. The results are presented in Table E.3.1.		OK
E.4. Estimated baseline emissions					
E.4.1. Are described the Formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for	1,2	DR	The Formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for		OK

the applicable project category?			the applicable project category are described.		
E.4.2. Is there a description of calculation of GHG baseline emissions in accordance with the Formula specified for the applicable project category?	1,2	DR	The estimated baseline emissions for each source of emissions are presented in PDD Section E.4 Table E.4.1.		OK
E.4.3. Have conservative assumptions been used to calculate baseline GHG emissions?	1,2	DR	There is explicit indication that conservative assumptions were made.		OK
E.5. Difference between E.4. and E.3. representing the emission reductions of the project					
E.5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the project during a given period?	1,2	DR	Yes, it does. Refer to Formula (9) $ER_y = BE_y - PE_y$ in PDD. Refer to Section E.5 Table E.5.1 for the crediting period.		OK
E.6. Table providing values obtained when applying Formulae above					
E.6.1. Is there a table providing values of total CO2 abated?	1,2	DR	PDD Section E.6 Table E.6 provides the total values of project emissions, leakage, baseline emissions, and emission reductions.		OK
***F.* Environmental Impacts**					
F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party					
F.1.1. Has an analysis of the environmental impacts of the project been sufficiently described?	1,2	DR	Analysis of the environmental impacts of the project is presented in PDD Section F.1 with reference to Section "Environment protection"		OK

			of the Design Document.		
F.1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	1,2,7	DR	Design Document contains Section "Environment Protection" as per Construction Code of RF. It received positive conclusion by Glavgosexpertiza which was made available to verifiers.		OK
F.1.3. Are the requirements of the National Focal Point being met?	1,2	DR	The National Focal Point (MED) issued an Order dated 23/11/2009 # 485 which requires the inclusion in the submitted project documentation (not PDD) a short description of the EIA carried out in accordance with the established order.		OK
F.1.4. Will the project create any adverse environmental effects?	1,2	DR	Section "Environment Protection" of the Design Document specifies contribution to air pollution. The project does not have significant environmental impact.		OK
F.1.5. Are transboundary environmental impacts considered in the analysis?	1,2	DR	PDD reads "that according to section "Environmental Protection" of Design Documentation, project does not have any transboundary environmental impacts". This issue will be checked during the site visit.	Pending	OK
F.1.6. Have identified environmental impacts been addressed in the project design?	1,2	DR	Environmental impacts have been assessed in section "Environmental Protection" of Design Document.		OK

***G.* Stakeholders' comments**					
G.1. Information on stakeholders' comments on the project, as appropriate					
G.1.1. Is there a list of stakeholders from whom comments on the project have been received?	1,2	DR	**CAR 23.** Please provide information if comments from local stakeholders were received. If not applicable, please state so.	CAR 23	OK
G.1.2. The nature of comments is provided?	1,2	DR	Conclusion is pending a response to CAR 23.	Pending	OK
G.1.3. Has due account been taken of any stakeholder comments received?	1,2	DR	Conclusion is pending a response to CAR 23.	Pending	OK

Table 3 Legal requirements

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Legal requirements					
1.1. Is the project activity environmentally licensed by the competent authority?	1,2	DR	Please refer to F.1.2.		OK
1.2. Are there conditions of the environmental permit? In case of yes, are they already being met?	1,2	DR	Refer to 1.1 above.		OK
1.3. Is the project in line with relevant legislation and plans in the host country?	1,2	DR	Refer to 1.1 above.		OK

Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CAR 01. The project has no approval of the Host Party.	1 Table1	The host country letter of approval was issued on 12/03/2012.	CAR is closed.
CAR 02. Please briefly summarise the history of the project (including its JI component).	A.2.1	Response 1 dated 28/09/2010 Brief summary of the history of the project (including its JI component) was added to Section A.2.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 03. In Section A.2 there is statement: "Coke (carbon) is used as fuel and generates reducing atmosphere in BF". This is erroneous as coke and carbon are different things. Please take note: throughout PDD these two concepts are mixed (especially in Section A.4.3). Such things can't be accepted by verifier.	A.2.1	Response 1 dated 28/09/2010 The text was corrected throughout Section A.2 and A.4.3	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 04. PDD, Section A.2 reads:" In general iron making plants are using sinter as a base additive which includes slag forming materials (CaO and MgO). Sinter production is connected with significant fuel consumption (about 50 kg of coke per tonne of sinter).	A.2.2	Response 1 dated 28/09/2010 The text was added to Section A.4.2. "Paul Wurth modified BLT for raw flux usage (technology is described above). Therefore it made possible to add dolomite and limestone directly in the BF thereby	Conclusion on Response 1 CAR is closed based on due correction made to PDD.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
KMZ does not use sinter …" but PDD developer doesn't explain how implemented new equipment associated with not using sinter in the blast furnace #1.		eliminating using of energy consuming material."	
CAR 05. Maintaining staff of bell less top charging device with rotating chute must have special trainings. This should be indicated in PDD.	A.4.2.4	Response 1 dated 28/09/2010 The text was added to Section A.4.2. "KMZ has organized special training sessions for bell-less top charging device with rotating chute maintenance held in MISiS (Moscow steel and alloys institute) for its staff. Additionally, KMZ had sent its maintenance staff to MMK for practical on job training in order to get work experience with the similar equipment."	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 06. PDD doesn't explain how the implemented new technologies, equipment and materials associated with consumption of coke in blast furnace #1 are connected with reduction of GHG emission.	A.4.3.1	Response 1 dated 28/09/2010 Explanations were added to Section A.4.2. The text was added to Section 4.3. KMZ does not consume sinter and fluxed pellet. Also new equipment introduction leads to specific coke consumption reduction during pig iron production by BF#1.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CAR 07. The last sentence: "No additional investment is required" is questionable and should be justified as it means that necessary pig iron (for KMZ) will be provided by other steel plants free of charge. Anyway "displacing production" will cost more than to produce pig iron for KMZ by itself. Moreover, dismantling of the Blast Furnace (as presumed by baseline) needs considerable investments.	B.1.1	Response 1 dated 28/09/2010 The text "No additional investment is required" was changed to "It is continuation of existing situation". Response 2 dated 30/09/2010 According to annual (2007) statistical report "Russian Chermet information" the blast furnaces idle time (not connected with repairs) is 625 days in Russia. Also slow run of blast furnaces is 131 days. Therefore additional 1.2 million tonnes of pig iron may be manufactured by other pig iron producers in Russia. No additional investment (for construction new capacity) is required for increasing production by other pig iron producers in Russia. Russian Federal Service for Ecological, Technical and Atomic Supervision has requested BF#1 shutdown due to its depreciation in 2008. Dismantling of the Blast Furnace could be financed by sale of scrap (old equipment) at KMZ. Thus "It is continuation of existing situation" and "No additional investment is required".	Conclusion on Response 1 CAR is not closed. PDD developer doesn't say about investments for dismantling or conservation BF #1 because PDD in Section A.2 reads: "It operated without any modernization and renovation since 1982 (26 years) and could not continue operating without renovation". Also it isn't clear what it means: "It is continuation of existing situation". Conclusion on Response 2 CAR is closed based on explanation which was made by PDD developer.
CAR 08. In PDD, Section B.1, page 15, alternative 3 "Reconstruction of Blast Furnace #1 is being done without using contemporary	B.1.1	Response 1 dated 28/09/2010 The text was added in Section B1.	Conclusion on Response 1 CAR is closed based on due correction made to

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
achievement in this field" there is statement: "Moreover, this scenario is not conservative in terms of greenhouse gas emissions". Please justify this statement.		Moreover, this scenario is not conservative in terms of greenhouse gas emissions (old technology and equipment have significant specific coke consumption and fluxed iron bearing materials consumption). Also old equipment could not cover the new capacity.	PDD.
CAR 09. Baseline setting contradicts the proposed specific approach for choosing the baseline. Approach presumes "listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one". But listed scenarios (except Scenario 1) by virtue of analysis turn out "not plausible". And only scenario 1 was assessed as plausible. The most plausible scenario is absent at all. Conclusion concerning baseline identification is not grounded. Please take note: Verifier cannot accept such inaccurate apply of approach chosen regarding baseline setting. PDD developer should accurately apply chosen approach.	B.1.2	Response 1 dated 28/09/2010 Description of plausible future scenarios was changed in Section B.1.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 10. Section B. shall contain all key elements of the baseline. Please indicate in tables at the end of section B.1 and tables in Annex 2 all the parameters used for baseline	B.1.5	Response 1 dated 28/09/2010 These parameters were added in Section B1, Annex2 and Monitoring.	Conclusion on Response 1 CAR is not closed. There isn't following pa-

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
emission factor calculation, such as slag production, content of CaO and content of MgO, etc. Please take note: these parameters should be included in monitoring of baseline emissions.		Response 2 dated 30/09/2010 These parameters were added in Section B1, Annex2 and Monitoring.	rameters: -Slag production by blast furnace in year y (tonnes); -Carbon monoxide content in k (blast furnace, coke oven gases) in year y (fraction). Conclusion on Response 2 CAR is closed based on due correction made to PDD.
CAR 11. Titles of Alternatives in Section B.2 and in Section B.1 differ. Moreover, Alternative 1 (set as the baseline) is titled "Continuation of the current situation". This is incorrect as situation without BF#1 was a consequence of project scenario start. Inherently, this Alternative is a part of Alternative 1 (proposed project activity).	B.2.1	Response 1 dated 28/09/2010 The Alternatives were corrected in Section B2.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 12. Please provide the sources of the input data for the costs and tariffs used in investment analysis.	B.2.1	Response 1 dated 28/09/2010 The data are presented by KMZ	Conclusion on Response 1 CAR is closed based on due correction made to

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
			PDD.
CAR 13. Please provide in the course of sensitivity analysis performing not only Scenario 3, but also Scenario 2 and Scenario 1 calculation in spreadsheet "20100812_ CF_Kosogorsky".	B.2.1	Response 1 dated 28/09/2010 Scenario 2,3,4 were recalculated separately. Response 2 dated 30/09/2010 New document (cash flow calculation) will be sent to BV.	Conclusion on Response 1 CAR is not closed. Please justify it by available spreadsheet. Conclusion on Response 2 CAR is closed based on due correction made to PDD.
CAR 14. PDD, Section B.2, page 22, common practice analysis reads:" In Russia the majority of blast furnaces were constructed before 1990, before the USSR disintegration. Metallurgical industry of Russia in the 90-ies of the XX century was working in the conditions of the systemic crisis of economy…" and PDD developer doesn't said about where and when similar equipment, materials and technology were used. Please provide an analysis of any other activities that are operational and that are similar to the proposed project activity.	B.2.1	Response 1 dated 28/09/2010 Analysis of other activities is on page 64 (Annex2). Response 2 dated 30/09/2010 The text of PDD (Step 4: Common practice analysis) was amended. Proposed JI project includes next main modern energy-efficient technologies and equipment which lead to CO2 emission reduction: • Applying of non-fluxed iron-bearing material (production without sinter and fluxed iron-bearing material usage).	Conclusion on Response 1 CAR is not closed. There isn't analysis of similar to the proposed project activity on page 64 (Annex2). Please provide common practice analysis of similar to the proposed project activity in Section B.2 of PDD. Conclusion on Response 2 CAR is closed based on due correction made to

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
		• Installation of bell-less top charging device with rotating chute. The ironmaking technology application by KMZ uses only non-fluxed iron-bearing raw materials. KMZ is exclusive pig iron producer in Russia which uses this technology. Using the technology allows producing pig iron with ultra-low content of impurities (according to data of LLC "Korporatsiya proizvoditeley chernih metalov"). BLT is used by other pig iron producers but KMZ uses BLT specially modified by Paul Wurth for raw flux usage. There are only six plants (iron producers)* in the world that use the same technology as OJSC KMZ. All of them are located outside of Russia and cannot be considered in the Common practice analysis.	PDD.
CAR 15. Please include in Table B.3.1 gases (CH4 and N2O) that was excluded from the consideration due to their small volume of emissions (see the description in section D.1).	B.3.1	Response 1 dated 28/09/2010 The gases were added in Table B.3.1.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 16. Since the start of the crediting period is 18/02/2010 the length of the crediting	C.3	Response 1 dated 28/09/2010 Length of the crediting period is 2.87 years or 34.36	Conclusion on Response 1 CAR is closed based on

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
period is less than 2.92 years or 35 months.		months.	due correction made to PDD.
CAR 17. Earlier in Section A.2 PDD developer said that the plant doesn't use sinter in BF#1. Please justify that the plant won't use sinter in BF#1 in the course of project realization (project scenario).	D.1.3	Response 1 dated 28/09/2010 Document is presented.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 18. Annex 2 provides calculation of BEF for incremental production under the baseline scenario. Presented formula (2) is incorrect because it contains the data of CaO and MgO content in BF#1 slag. These data are not associated with estimated baseline emissions.	D.1.6	Response 1 dated 28/09/2010 The text was corrected in Annex 2.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 19. Please justify that in the baseline scenario energy and fuel consumption is bigger than in project scenario.	D.1.11	Response 1 dated 28/09/2010 GHG emission factor of pig iron production in the baseline scenario is bigger than the project scenario (according ER calculation). As the GHG emission factor is calculated on fuels consumption basis. Therefore energy and fuel consumption in the baseline scenario is bigger than in the project scenario.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CAR 20. Please justify in the calculations (spreadsheets) the increase of steelmaking	E.1.1	Response 1 dated 28/09/2010	Conclusion on Response 1

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
pig iron production value in 2011.		The GHG emission calculation was made according to KMZ's business plan. Document is presented. Response 2 dated 30/09/2010 The document (business plan) will be sent to BV.	CAR is not closed. Please provide available for verifier document to justify the increase of steelmaking pig iron production value in 2011. Conclusion on Response 2 CAR is closed based on due received document.
CAR 21. Please justify in the calculations (spreadsheets) the understatement of limestone, dolomite and coke consumption values in 2010-2011.	E.1.1	Response 1 dated 28/09/2010 The GHG emission calculation was made according to KMZ's business plan. Document is presented. Response 2 dated 30/09/2010 The document (business plan) will be sent to BV.	Conclusion on Response 1 CAR is not closed. Please provide available for verifier document to justify the understatement of limestone, dolomite and coke consumption values in 2010-2011. Conclusion on Response 2 CAR is closed based on due received document.
CAR 22. Project calculations should be corrected as emissions were calculated for the	E.1.2	Response 1 dated 28/09/2010	Conclusion on Response 1 CAR is not closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
whole year 2010, but the crediting period started only from 18/02/2010.		The GHG emission calculation was made according to KMZ's business plan. Production of pig iron in 2010 does not contradict possible capacity of BF#1 during 11 months. Response 2 dated 30/09/2010 The document (business plan) will be sent to BV.	Please provide available for verifier document to justify the due production of pig iron in 2010. Conclusion on Response 2 CAR is closed based on due received document.
CAR 23. Please provide information if comments from local stakeholders were received. If not applicable, please state so.	G.1.1	Response 1 dated 28/09/2010 The text was added in Section G.1. There were no negative comments received.	Conclusion on Response 1 CAR is closed based on due correction made to PDD.
CL 01. Please clarify whether sinter was used or not in the blast furnace #1 before reconstruction.	A.2.2	Response 1 dated 28/09/2010 Sinter is used as iron bearing material before project (see CAR#17).	Conclusion on Response 1 CL is closed based on due clarification made by PDD developer.
CL 02. Please explain why values of steelmaking and foundry iron price are lower than their costs so it means that the factory operates at a loss.	B.2.1	Response 1 dated 28/09/2010 Production of pig iron is on the verge of pay back (revenues from slag and BFG should be taken into account) at KMZ. Revenues from ferromanganese production may cover pig iron negative expenditures in case if they take place.	Conclusion on Response 1 CL is closed based on due clarification made by PDD developer.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CL 03. In accordance with common practice for BLT charger working, it is needed to use nitrogen. Nitrogen is produced with the consumption of electricity. Please clarify, whether nitrogen is used for BLT charger working, and if yes, why PDD developer doesn't take it into account?	B.3.1	Response 1 dated 28/09/2010 This source was added in Table B.3.1. The source was excluded from the consideration due to relatively small volume of emissions less than 1 percent of the annual average anthropogenic emissions and not exceed an amount of 2,000 tonnes of CO_2 equivalent per year.	Conclusion on Response 1 CL is closed based on due clarification made by PDD developer.