DETERMINATION REPORT
CARBON TRADE & FINANCE
SICAR S.A.

DETERMINATION OF THE "PRODUCTION OF CONTINUOUSLY CASTED SLAB STEEL BILLET BY ARC-FURNACE TECHNIQUE AT OJSC MMK"

REPORT NO. RUSSIA-DET/0105/2010

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

Date of first issue:	Organizational unit:
08/02/2011	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
Carbon Trade & Finance SICAR S.A.	Mr. Ingo Ramming

Summary:

Bureau Veritas Certification has made the determination of the project "Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK" project of company Carbon Trade & Finance SICAR S.A. located in Luxembourg, Senningerberg, Route de Treves 6a 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 applies the appropriate baseline and monitoring methodology and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.:	Subject Group:
RUSSIA-det/0105/2010	JI

Project title:

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

Work carried out by:

Vera Skitina – Team Leader, Lead verifier

Work reviewed by:

Leonid Yaskin – Internal Technical Reviewer

Work approved by:

Flavio Gomes – Operational Manager

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Abbreviations

AIE	Accredited Independent Entity
BVC	Bureau Veritas Certification
BFP	Blast-furnace plant
CAR	Corrective Action Request
CL	Clarification Request
CO2	Carbon Dioxide
DDR	Draft Determination Report
DR	Document Review
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ERU	Emission Reduction Unit
EAF	Electric Arc Furnace
EAFP	Electric Arc Furnace Plant
GHG	Greenhouse House Gas(es)
CTF	Carbon Trade & Finance SICAR S.A.
IE	Independent Entity
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
NG	Natural gas
NGO	Non Governmental Organization
OHP	Open Hearth Plant
PDD	Project Design Document
PP	Project Participant
RF	Russian Federation
tCO2e	Tonnes CO2 equivalent
UNFCCC	United Nations Framework Convention for Climate Change

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1 INTRODUCTION

Carbon Trade & Finance SICAR S.A. (hereafter called "CTF") has commissioned Bureau Veritas Certification to determine JI project "Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK" (hereafter called "the project") located in the city Magnitogorsk, Chelyabinsk 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:

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

Vera Skitina

Bureau Veritas Certification Team Leader, Climate Change Lead 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 CTF 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, CTF revised the original PDD v.1.0 dated 14/12/2010 and resubmitted it as v.1.2 dated 01/02/2011.

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The first deliverable of the document review was the Determination Protocol Version 01 dated 24/12/2010 which contained 12 CARs and 4 CLs.

The determination findings presented in this Determination Report Version 01 and Appendix A relate to the project as described in the PDD versions 1.0 (published) and version 1.2 (final) dated 01/02/11[1].

2.2 Follow-up Interviews

On 19-20/01/2011 Bureau Veritas Certification lead verifier V.Skitina performed a visit to the project site. On-site interviews with the project participant OJSC MMK" and the PDD developer CTF were conducted to confirm the selected information and to clarify some issues identified in the document review. Representatives of OJSC MMK" and the PDD Developer CTF were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
OJSC MMK	➢ OGSC MMK Investment Programme ➢ Reasoning for project implementation ➢ Project management organization ➢ Project history and Implementation schedule ➢ Baseline scenario ➢ Barriers and uncommon practice ➢ Project scenario ➢ Recourse consumption saving effects ➢ Emission calculation ➢ Investment issues ➢ Commissioning and proven trials ➢ Capacity replacement issues ➢ QC & QA Procedures ➢ Training of personnel ➢ Environmental permissions ➢ Environmental Impact Assessment ➢ Public hearings
CONSULTANT CTF	➢ Baseline scenario ➢ Barriers and uncommon practice ➢ Project scenario ➢ Investment issues
Stakeholders	➢ N/A

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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 PROJECT DESCRIPTION

Open joint-stock company "Magnitogorsk Iron and Steel Works (MMK)" is the biggest enterprise of iron and steel industry in Russia. It is a full-cycle metallurgical complex, which begins with preparation of iron ore raw materials and ends up with advanced processing of rolled steel.

The aim of the proposed project is to reduce overall environmental impact including CO2 emissions as a result of implementation of new resource-saving technology of slab steel billet production at OJSC MMK which is performed by arc-furnace technique with further continuous casting.

Situation existed before project realization

Before project implementation the slab steel billet has not been produced by arc-furnace technique at OJSC MMK. Historically the production of slab steel grades was assigned to oxygen-converter plant (OCP) of MMK started in 1990-1999 and equipped with five continuous casting machines (CCM). Section steel grades were produced at open-hearth furnace plant.

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Project scenario

In 2005-2006 MMK has realized a large project of steel smelting facilities reconstruction. In 2006 the new electric arc furnace plant (EAFP) replaced open-hearth furnace plant that was revamped. The EAFP includes the following units: two high-capacity electric arc furnaces (EAF-180) manufactured by Austrian company "Voest-Alpine AG" with output capacity of 2 million tons of liquid steel per year each, ladle furnace steel processing aggregates, one slab continuous-casting machine (CCM #5) with capacity of 2 million tones/year of slab steel billet and two section continuous casting machines manufactured by Austrian company "VAI" with total capacity of 2 mln. tones/year of profiled steel billet. One DBSU was left to operate under partial load. Thereby EAFP produces both section and slab steel billet.

The project "Implementation of arc-furnace steelmaking at Magnitogorsk Iron and Steel Works" was arranged as Joint Implementation project and passed a determination and verification by Bureau Veritas, however in the project boundary the only section steel billet production was included as previously this function was performed by open-hearth furnace plant and blooming mill plant, i.e. steel billet was made at the own industrial site area.

The proposed project takes into account the greenhouse gas emissions associated with production of slab steel billet in EAFP of MMK.

Double-strand slab CCM #5 was commissioned in July 2006 together with other facilities of electric arc furnace plant complex. The contract for CCM delivery was signed in August 2004 with "Uralmash Machine-Building Corporation" company.

Baseline scenario

In the absence of the proposed JI project the production of slab steel billet would be carried out at the existing metallurgical plants of Russia (including the oxygen-converter shop of MMK) or newly introduced capacities (during the crediting period). Output of slab steel billet in EAFP of MMK is limited by the technical capacity of the slab CCM #5 - 2 million tons of steel billet annually. Output of slab steel billet is equivalent in the project and in the baseline.

Various metallurgical enterprises of the Russian Federation use different production technologies: at the beginning of 2010 the most common method of steelmaking - smelting in oxygen converters, the share of this technology accounted for 67% of the total smelting, steel melted in electric arc steel furnaces is 25% and 8% is steel produced by different versions of the open-hearth process: the pig-and-ore process, the scrap process and the production in double-bath steelmaking units. CO2 emissions from production of one ton of steel by steel mills of Russia

exceeds CO2 emissions from production of one ton of steel billet in EAFP of MMK, because open-hearth and oxygen-converter method of production are more resource-and carbon intensive in comparison with the arc-furnace process due to use of mostly pig iron as a raw material (except open-hearth scrap process).

Actually before the ratification of the Kyoto Protocol by the Russian Federation in 2004 OJSC "MMK" had seriously considered the possibility to raise income via sale of emission reduction units (ERUs) to be generated by the given JI project (Annex 7). For this purpose a top-management of MMK established a JI project implementation working group, which was meeting on monthly basis, identifying potential project scenarios and estimating the expected emission reductions. This working group actively communicated with governmental authorities: Ministry of Economic Development of the Russian Federation (MED), Ministry of Natural Resources (MNR), State Duma. Various pertinent issues were discussed: clarification of the provisions of the KP with regard to the proposed project, GHG emission inventory, JI project registration procedures. As a result of project implementation, total emission reductions in 2008-2012 were estimated as 1,842,992 tons of CO2-eq.

4 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 12 Corrective Action Requests and 4 Clarification Requests.

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

4.1 Project approvals by Parties involved (19-20)

The project has no approvals by the Host Party, therefore CAR 03 remains pending.

A written project approval by Party B 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. It has not been provided to AIE at the determination stage.

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4.2 Authorization of project participants by Parties involved (21)

The participation for OJSC MMK" 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 authorization is deemed to be carried out through the issuance of the project approvals.

4.3 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 Alternative1:
   a. Alternative 1: Production of slab steel billet at the existing metallurgical works or newly introduced capacities (during the crediting period) in Russia other than EAFP of MMK);
   b. Alternative 2: Reconstruction of the open-hearth plant of MMK into EAFP and production of continuously casted slab steel billet in it;

(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. Sectoral reform policies and legislation in steel industry.
      The PDD refers to the official Strategy of development of the metallurgical industry of Russia until 2020.
      Project activity is in line with the mentioned goals however they do not impose any obligations for the company owner of the metallurgical plant;
   b. Economic situation in Russian steel industry and predicted demand.
      As a key assumption it is taken: that MMK would contribute to slab steel market with other Russian metallurgical giants to substitute 2.0 mln. tonnes of slab steel produced in the

absence of the project and the availability of the major seven integrated steelworks giants on Russia steel market (according to the statistical data of "Corporation CHERMET", LLC) of production of 2 million tonnes of slab steel billet, required to substitute the project output during the implementation of EAF project at MMK, is analyzed and a positive conclusion is made, in order to understand how likely the additional production is ensured;

c. Availability of capital to OJSC MMK.
Capital is available; the investment analysis shows that at benchmark 8% the proposed project is not economically attractive for MMK. This aspect was considered during additionality proof (Section B.2);
d. Local availability of technology/techniques and equipment.
The PDD reads that slab steel billet at the existing metallurgical works or newly introduced capacities are widely spread in Russia. This aspect was considered during additionality proof (Section B.2);
e. Price and availability of fuel.
Electricity, natural gas and coke are widely used and available in Russia. All of them are produced inland. Fuel prices in Russia are less than world market price. Detailed information is given in the PDD, Section B.2.

After screening the second alternative scenario the first alternative is left as the most plausible, namely:

Alternative 1: Production of slab steel billet at the existing metallurgical works or newly introduced capacities (during the crediting period) in Russia other than EAFP of MMK).

All explanations, descriptions and analyses pertaining to the baseline in the PDD are made in accordance with the referenced JI specific approach and the baseline is identified appropriately.

4.4 Additionality (27-31)

JI specific approach

Traceable and transparent information showing that the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of anthropogenic emissions by sources of GHGs was provided In PDD Section B.2.

The PDD developer provides a justification of the applicability of the approach with a clear and transparent description, as per item 4.3 above.

PDD developer described and scrutinized plausible alternative scenarios which have been provided in Section B.1:

Alternative 1: Production of slab steel billet at the existing metallurgical works or newly introduced capacities (during the crediting period) in Russia other than EAFP of MMK);

Alternative 2: Reconstruction of the open-hearth plant of MMK into EAFP and production of continuously casted slab steel billet in it;

Justification of additionality has been done in several steps, as a preface to the additionality proofs a barrier analysis is carried out, the steps are as follows:

(a) identification of alternatives to the project activity (analogous to those in Section B.1),
(b) investment and sensitivity analyses,
(c) common practice analysis.

The key additionality proofs were the results of the investment and sensitivity analyses. The investment is based on calculation of the revenue from sale (or purchase at the market) of 2 million tons of slab steel billet minus costs of its production at MMK. The provided spreadsheet shows that at benchmark 8% the proposed project is not economically attractive for MMK.The sensitivity analysis of variations of key parameters (investment cost and consumption of metal stock, fuel and electricity) confirms the conclusion of the basic investment analysis.

The spreadsheet with the investment and sensitivity analyses were made available for the verifier, and Bureau Veritas Certification will submit it to JISC at the final determination as the supporting documentation.

The common practice analysis has shown that the proposed JI project does not represent a widely observed practice in the geographical area concerned.

The verifier determined that additionality is demonstrated appropriately as a result of the analysis using the approach chosen.

4.5 Project boundary (32-33)

JI specific approach

The project boundary defined in the PDD, Section B.3, Table B.3-1 for project and baseline scenario accordingly, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

(i) Under the control of the project participants such as:

- Metallurgical conversion stages: by-product coke plant, blast-furnace plant, complex of electric arc furnace plant;

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- Own generation capacities of OJSC "MMK": CHPP, CPP, SABPP, turbine section in the steam plant, gas recovery section in the steam plant;

(ii) Reasonably attributable to the project such as:

- GHG emissions from the Unified Energy System of Urals;

(iii) Significant such as:

- All the sources mentioned above.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD, Section B.3.

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.

4.6 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 began, and the starting date is 07/07/2004, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 12 years or 144 months.

The PDD states the length of the crediting period in years and months, which is 5 years or 60 months, and its starting date as 01/01/2008, which is on the date the first emission reductions are generated by the project.

The PDD states that the extension of its crediting period beyond 2012 is subject to the host Party approval, and the estimates of emission reductions are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

4.7 Monitoring plan (35-39)

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

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:

- CO2 emission from metallurgical conversions within the project boundaries;
- Specific CO2 emission per ton of coke, pig iron and steel billet;
- Consumption of pig iron and scrap metal for production of one ton of steel billet and consumption of metallurgical coke per one ton of pig iron;
- Project CO2 emission from metallurgical conversions during production of slab steel billet using defined specific values and coefficients;
- CO2 emission coefficients associated with generation of electricity and air blast at MMK, and project emissions from consumption of electricity in EAFP and consumption of air blast in BFP required for production of the profiled steel billet;
- Total project CO2 emissions associated with production of slab steel billet are summarized.

Remainder factors and key characteristics are listed in the PDD, Sections D.1, D.1.1.1 for the project, Section D.1.1.3 for the baseline and Annex 4.

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 or enhancements of net removals to be monitored such those listed in the PDD, Sections D.1.1.1 and D.1.1.3.

The monitoring plan is developed subject to the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC.

All categories of data to be collected in order to monitor GHG emissions from the project and determine the baseline of GHG emissions (Option 1) are described in required details.

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:

- Carbon content in raw materials and fuels;
- CO2 emission factors for fuel combustion;
- CO2 emission factors for iron production;
- CO2 emission factors for electrodes consumption;
- Electricity consumption for oxygen production;

(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:

- CO2 emission factors for grid electricity produced by Unified Energy System players of Russia (7 systems named in Table D.1.2);

(iii) Data and parameters that are monitored throughout the crediting period, such as those presented in Section D.1.1.1 for the project and Section D.1.1.3 for the baseline.

Step-by-step application of the used approach for monitoring is described in PDD Section D and Annex 4 including monitoring procedures, formulae, parameters, data sources etc.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording; please refer to PDD, Section D.1.1.1 and Section D.1.1.3.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions and project emissions or direct monitoring of emission reductions from the project, leakage, as appropriate, such as formula in Section D.1.1.4 for baseline emissions (Formula D.1.1.4-1) and Section D.1.1.2 for project emissions (Formula D.1.1.2.-33). Leakage in the production of slab steel billet in the baseline would be more than in the project due to technological reasons and they are not included for reasons of conservativeness approach. Thus, leakage is reasonably neglected (refer to Section D.1.3.2).

The monitoring plan presents the quality assurance and control procedures for the monitoring process, all the QC/QA procedures are specified in PDD Section D.2

The procedures include, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. The operating and management structure for GHG monitoring is described in PDD Section D.3, Diagram D.3.1. The responsibilities and the authority regarding the monitoring activities are provided in a tabular form within the Section D.3.

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) 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.

4.8 Leakage (40-41)

JI specific approach

The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains that the estimation of leakage is reasonably neglected.

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

JI specific approach

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

The PDD provides the ex ante estimates of:

(a) Emissions for the project scenario (within the project boundary), which are 4,833,361 tons of CO2eq;
(b) Leakage (N/A);
(c) Emissions for the baseline scenario (within the project boundary), which are 6,666,662 tons of CO2eq;
(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are 1,842,992 tons of CO2eq.

Reporting period: From 01/01/2008 to 31/12/2012.

The formulae used for calculating the estimates are referred in the PDD, Sections D.1.1.2, D.1.1.4, D.1.4, and E.1.

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.

The estimation referred to above is based on conservative assumptions and the most plausible scenario 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.

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project (transboundary impacts are not applicable to the project), in accordance with procedures as determined by the host Party, such as the Federal Law "On the Environmental protection #7-FZ".

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.

4.11 Stakeholder consultation (49)

Stakeholder consultation was not undertaken as it is not required by the host party.

4.12 Determination regarding small scale projects (50-57)

Not applicable

4.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64)

Not applicable

4.14 Determination regarding programmes of activities (65-73)

Not applicable

5 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.

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6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK" Project in Russia. 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 approach that resembles the tool for demonstration of the additionality. In line with this approach, the PDD provides barrier analysis, 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 review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfilment of stated criteria.

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 1.2 dated 01/02/2011 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

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

7 REFERENCES

Category 1 Documents:

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

Documents provided by OJSC MMK" that relate directly to the GHG components of the project.

/1/ "Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK", PDD Version 1.0 dated 14/12/2010. Published on UNFCCC site 22/12/2010. PDD Version 1.2 dated 01/02/2011. Received on 01/02/2011.

3 Excel spreadsheet with calculation of emission reduction. Provided by PDD Developer.

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

/1/ Guidelines for Users of the Joint Implementation Project Design Document Form/Version 04, JISC.

/2/ JISC Guidance on criteria for baseline setting and monitoring. Version 02.

/3/ Glossary of Joint Implementation terms. Version 02, JISC.

/4/ 2006 IPC Guidelines on National Greenhouse Gas Inventories. Volume 3 Chapter 4.

/5/ "Regulation of realization of Article 6 of Kyoto Protocol to United Nation Framework Convention on Climate Change". Approved by the RF Government Decree # 843 of 28/10/2009 "About measures on realization of Article 6 of Kyoto Protocol to United Nation Framework Convention on Climate Change".

/6/ Input financial data for of the OHP reconstruction arrangement and EAFP designing at MMK (stage before investment decision)

/7/ A pre-assessment calculation financial data for the OHP reconstruction arrangement and EAFP designing with total steel output of 4 mln. t yearly at MMK (stage before investment decision)

/8/ The baseline assessment data for emission reduction assessment values due to potential JI project available at MMK, dated 25/09/2008

/9/ A long term invest programme of OAO MMK for 2004-2013

/10/ Letter of Mr. V. F. Rashnikov, Director General of OJSC «MMK» to State Duma of the Russian Federation, dated 17.11.2004

/11/ Technical Protocol of the meeting held at First Deputy General Director about forthcoming changes in RF Environmental legislation due to forthcoming Kyoto Protokol by the State Duma of RF ratification

/12/ Order # 440 "About EAFC in EAFP contraction with total steel output of 4 mln. t yearly at MMK", dated 22/06/04

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

/13/ Arrangement #AM-21 dated 23/03/05 "About Working Group creation"

/14/ The Order and Annex 2 to the Order #635 dated 22.11.02 "About Working Group for OHP reconstruction

/15/ Conclusion issued by State Regional Committee as the unit tariff administrative tribunal about the fixed tariff data for the electricity consumed by OOO MMK, dared 2003

/16/ Environmental Action Plan "MMK", actual till 2015

/17/ Positive State Opinion on the the Working Design Project "OAO "MMK" OHP Complex. Reconstruction. #394 dated 06/07/2004

/18/ Positive State Opinion on the the Working Design Project "OAO "MMK" OHP Production reconstruction. #130 dated 31/05/2006

/19/ Contract #MO-p-2/020604 dated 26.08.04. Total package procurement to CCM#5 by "Uralmash-Metoborudovanie"

/20/ Local building permit given by УаиГ, Magnitogorsk city, #PC-0164-2006, dated 09.04.07

/21/ Plant's information Letter to project costs of CCM Construction Project #СМК УКС-17-0.

/22/ Project Design to construction of CCM3%. Project #M32266-ПЗ.

/23/ Construction contract for the reconstruction of "MMK/Russia 180toEAF Project 2622. Basic Design Data and Process description".

/24/ Construction contract ("Gipromez") for project design for CCM construction. Dated 09.01.03

/25/ Construction contract #1/2006-po for additional package procurement to CCM#5.

/26/ Construction contract #54 dated 14.02.06 ("Gipromez")

/27/ State Act of Acceptance #16-07 "Final Acceptance costruction – CCM#5 by acceptance committee» dated 03.04.07

/28/ Working Committee Act of Acceptance #1-07 "Final Acceptance of CCM#5 after testing operations" dated 31.01.07

/29/ Local Architectural and urban planning Administration Letter #29 dated 16.07.06

/30/ State Authority Rostechnadzor Permiton #PPC-00-22378 for CCM35 Complex practical application dated 15.11.06

/31/ The Environmental Impact Assessment (OVOS)

/32/ Environmental permissions and limits issued for "MMK" by Interregional Department of Rostekhnadzor for Ural Federal Okrug for BFP, OHFP, and EAFP. All valid on the date of the site visit.

/33/ Technical Statistic and Information Bulletin "Iron industry" Monthly

Reports for 2008, 2009.

/34/ State statistic environmental form 2-tp (air) of "MMK" in 2006, 2008, 2009, 2010.

/35/ Schedule for the Electric Furnace Steel-smelting Complex (EAFP) construction & setting into operation at the planned technical capacity.

/36/ Technical Data of the steel output volumes at EAFP complex in the year 2008-2010

/37/ Technical Guidance on the planned maintenance of the machinery in the iron and steel industry in Russian Federation.

/38/ Monthly Technical Reports of OHF, EAFP, BFP of "MMK", 2009, 2010

/39/ Technical production Data for 2011 for the date of site visit (19.01.11)

/40/ Production Programme for 2011 for EAFP Complex

/41/ Maintenance Schedule for 2011, for EAFP Complex

/42/ Technical Order #НТЦ-003 dated 22.01.10 " About responsibilities for GHG process monitoring" (following Order #ВР-402 dated 22.08.08)

/43/ Technical Letter #ТУ-0146 dated 22.01.10 "About monitoring Parameters provision"

/44/ Orders for allocation of responsibility for Information GHG Matrix managing (for production units separately)

/45/ Technical Data for carbon contents in production & technological gases used at MMK

/46/ Corporate Standard ПД ММК 3-ССГО-01-2010 "GHG Monitoring Process"

/47/ Technical Data for electricity generation and consumption at production of MMK for 2005-2007

/48/ Technical Data for chemical compositions of charging materials, pig and pig iron, steel output, slag, dust, agglomerate and other raw materials, used for the baseline and project calculation (2002 and 2007)

/49/ A technological flow diagram of EAFP

/50/ Data for emission reduction at OHP (EAFP) calculated based on CNIIChermet Methodology (RF research scientific institute) for 1988-2007

/51/ Gross and specific polluting substances emission at OHP (EAFP) calculated for 2002-2012

/52/ Gross main polluting substances emission at OHP (EAFP) calculated for 2002-2012

/53/ Graphical data of energy intensity of production at MMK for 1996-

2008

/54/ Attachment 1&2 to the Contract (the project design) "MMK/Russia 180toEAF Project 2622. Basic Design Data and Process description. Projectterminplan

/55/ A contract between RUP "Belorussian Metallurgical Plant" and OAO "MMK" to train technological personnel (26 persons), dated 2005

/56/ Internal Letter #116/SGO dated 29/09/2009 "About verification of the PDD (the project) with regard to the invest analysis results"

/57/ Data of production cost in MMK for 1-26/10/2009

/58/ Data of production cost of the steel (OHP) with two DBSUs for 2003

/59/ Data of production cost of the steel after DBSU (OHP) in 2004 and estimated data with cost of the steel after DBSU (OHP) and additional treatment in two LFA's (baseline scenario)

/60/ A timetable for capital maintenance overhaul of the metallurgical aggregates of MMK in 2009

/61/ Rate of scrap prices time history in 2003-2004. Data produced by MMK Economic Department

/62/ Measuring appliances records of EAFP Complex, 2010, 2011

/63/ A timetables for the obligatory testing of the measuring instrument calibration) under service conditions of EAFP

/64/ Training personnel records dated 17/12/09 (EAFP)

/65/ Order # ИД-77 dated 03.02.10 "Environmental production monitoring schedule in respect to EMS for 2010"

/66/ Accreditation attestation issued by State Federal Agency for Technical Regulation and Metrology (GOST R) # ROSS RU.0001.512269 valid till 25.09.2012

/67/ Provisions or Environmental protection Laboratory of MMK #425/12-01 dated 27/11/2009

/68/ Order issued by CTF Consulting Ltd. "To approve Monitoring Procedure" dated 11/12/09

/69/ Document & Records Management Procedure applied to the project monitoring report issuing, ver.01 dated 11/12/09

/70/ Environmental licenses of MMK valid on the date of the site visit.

/71/ State formal note to follow Russian Environmental state regulations by "MMK" dated 16/01/2009

Persons interviewed:

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

"Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK"

/1/ Y.Bodayev – Executive Director of MMK

/2/ O.Fedyunin – Vice President

/3/ A. Mitchin – Manager of Project Monitoring Department

/4/ O. Mel'nikova – Chief of Department for relations with state authorities and markets protection (JI project implementation coordinator)

/5/ E.Kandourov – Strategic Marketing Lead Specialist

/6/ S. Sidel'nikov – Chief of Centre of Energy Saving Technologies (CEST)

/7/ L. Koptsev – Chief of Central Laboratory of Control in structure of Scientific and Technological Center

/8/ I. Kutcherova – Manager of Technological department

/9/ K. Stroganov – Lead Specialist of Scientific and Technological Center

/10/ A. Bakhol'skiy – Lead Economist

/11/ A. Maslennikov – Senior Manager of Metallurgical Economics Group

/12/ E. Artamonova – Manger of Scientific and Technological Center

/13/ S. Komarov – Lead Engineer of Technological department

/14/ V. Borisenko – Lead Engineer of Technological department

/15/ A. Velikiy – shop manager of the EAFP

/16/ Y. Dolgorukov – Technological Deputy shop manager of the EAFP

/17/ A. Ovsyannikov – Economist of Metallurgical Economics Group

/18/ A. Saphin - Electric of the EAFP

/19/ E. Kravchenko - Metrologist of the EAFP

/20/ V. Zhuravlev– Lead Specialist of Metallurgical Economics Group of the BFP

/21/ V. Begilyuk - Technologist of the BFP

/22/ M. Semenyuk – Acting as Technologist of the BFP

/23/ M. Kontsov – Lead IT Specialist of the BFP

/24/ A. Elephirenko – Chief of Loading division of the BFP

/25/ O. Maevskiy – Lead Automatization Specialist of the BFP

/26/ I. Ivashkin – Acting as Senior Manager of the BPCP

/27/ N. Lutokhin – Senior Manager of Managing Production Group of the BPCP

/28/ O. Drobniy – Head of Environmental Protection Laboratory

/29/ V. Kozyulin – Deputy of Head of Environmental Protection Laboratory

/30/ E. Ptitsyn –Head of Air Protection Structure of Head of Environmental Protection Laboratory

/31/ V. Panin – Chief Metrologist

/32/ L. Ivanova – Lead Metrologic Engineer

/33/ V. Chebotov – Acting as CEST

/34/ T. Olennikova – Head of Electricity Usage Laboratory

/35/ T. Korolova – Head of Fuel and Power Resources Accounting Devision

/36/ N. Korolev – Head of Automatization Department, "MMK Informservice"

/37/ A. San'ko – Deputy Manager of Economic Department

/38/ I. Bondyaev – Deputy Chief of Department for relations with state authorities and markets protection

/39/ K. Myachin – PDD developer, CTF

/40/ S.Gryazeva – PDD developer, CTF

DETERMINATION PROTOCOL

Check list for determination, according JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
Guidelines for JI PDD Form Users Section A General description of the project					
A.1. Title of the project					
A.1	Is the title of the project presented? Is the sectoral scope to which project pertains presented? Is the current version number of the document presented? Is the date when the document was completed presented?	The title of the project is: "Production of continuously casted slab steel billet by arc-furnace technique at OJSC MMK". Sectoral scope is (9) Metal production. The PDD Version 1.0 was presented to Bureau Veritas for publication on UNFCCC JI site and it was reviewed as a part of determination. PDD is dated 14.12.2010.	N/A	N/A	OK
A.2 Description of the project					
A.2	Is the purpose of the project included with a concise,	The aim of the project is defined as "to reduce overall	UResponse to CL 01 dated	The Response is	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description). Is the history of the project (incl. its JI component) briefly summarized?	environmental impact including CO2 emissions as a result of implementation of new resource-saving technology of slab steel billet production at OJSC MMK which is performed by arc-furnace technique with further continuous casting". Requirements to the content of Section A.2 are met. a) Prior to project implementation the slab steel billet has not been produced by arc-furnace technique at OJSC MMK. Historically the production of slab steel grades was assigned to oxygen-converter plant (OCP) of MMK deployed in 1990-1999 and equipped with five continuous casting machines (CCM). b) The baseline is defined as the production of slab steel billet at the existing metallurgical plants of Russia (including the oxygen-	1/02/2011 Statistic data of "Corporation CHERMET", LLC does not represent the consumption of the furnace charge and energy resources per tonne of steel billet. Instead the same data per tonne of steel is presented. Statistic information is based on data provided by the Russian metallurgical works. Therefore for ERUs calculation we calculate and subtract the baseline $CORR_2$ emissions from slab steel production at the metallurgical works of Russia and project CO_2 emissions from slab steel billet production at EAFP of MMK. This is acceptable and conservative as technological cycle of production of any metallurgical works includes	accepted. CL is closed.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		converter shop of MMK) or newly introduced capacities (during the crediting period). Output of slab steel billet in EAFP of MMK is limited by the technical capacity of the slab CCM #5 - 2 million tons of steel billet annually. Output of slab steel billet is the same in the project and in the baseline. c) Under the project activity the additional output of 2 million tones of slab steel billet is produced at OJSC MMK by the most efficient technology – arc-furnace technique and double-bath steelmaking unit (DBSU #32) with further continuous casting in double-strand slab Continuous-casting machine (CCM #5). d) Prior consideration of JI opportunity for a wide range of MMK is described in Section A.2 and witnessed by Annex 7. **CL 01.** Please provide	production of steel billet, as a commodity that can be stored and transported. Steel billet is further used in rolled metal shops at the same metallurgical works (in this case it can be considered as semi product), or transferred to other works for further processing (in this case, the steel billet is the final product), but as a rule – both together. The conversion of the liquid steel into steel billet is performed in two ways: 1. through the continuous casting at CCM 2. liquid steel is casted first into the moulds with further recovery and heating of ingots, and their treatment into a standard billet at the blooming-slabbing mill. Both operations lead to metal losses, in the first case they		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		consistency of the statement on page 3 PDD: "CO2 emissions from production of one ton of steel by steel mills of Russia exceeds CO2 emissions from production of one ton of steel billet in EAFP of MMK, because open-hearth and oxygen-converter method of production are more resource-and carbon intensive in comparison with the arc-furnace process due to use of mostly pig iron as a raw material (except open-hearth scrap process)" with definition of the baseline scenario "the production of slab steel billet would be carried out at the existing metallurgical plants of Russia (including the oxygen-converter shop of MMK)…". The comparison of CO2 emissions from production of one ton of steel by steel mills of Russia and one ton of steel billet (correctly slab billet) in EAFP of MMK is not	are insignificant, in second - losses reach 10 percent or more (formation of clipping during the extraction of the ingots, metal loss during heating before the blooming slabbing mill, etc.) A number of metallurgical works involved in the calculation of baseline emissions cast all or part of the steel by the second method, and therefore spend more resources and fuel for the steel billet production, which are not included in the calculation of baseline emissions. Therefore as the specific CO_2 emission per tonne of the steel (baseline) is lower than specific CO_2 emission per tonne of the steel billet (project) the equalization of the steel and steel billet is		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		correct since the steel is the final product and slab billet is the semi-product. The same point of concern request pertains to the statement on page 8.	acceptable and conservative. In addition project emissions from the production of argon, nitrogen, electricity and electrodes during ladle treatment of steel at EAFP MMK are calculated. In statistic report of "Corporation CHERMET", LLC these data are absent. This confirms the fact that approach taken in the PDD is conservative. The information is added in the PDD, version 1.2, pages 3 and 8.		
A.3 Project participants					
A.3	Are project participants and Party(ies) involved in the project listed? Is contact information provided in Annex 1 of the PDD?	Host Party is the Russian Federation (Party A). Party B is to be determined at the later stage. Legal entity for Party A is OJSC "MMK", for Party B is Carbon Trade & Finance SICAR S.A. The contact information is	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		provided in PDD Annex 1.			
A.4 Technical description of the project					
A.4.1	Location of the project	Refer to A.4.1.1-A.4.1.4.	N/A	N/A	OK
A.4.1.1	Host Party(ies)	The Russian Federation.	N/A	N/A	OK
A.4.1.2	Region/State/Province etc.	Chelyabinsk Region, Russian Federation.	N/A	OK	OK
A.4.1.3	City/Town/Community etc.	Magnitogorsk city. Industrial site of OJSC "MMK".	N/A	N/A	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)	Sec. A 4.1.4 provides general information about the physical location. **CAR 01.** Please provide the geographical coordinates of the project location and the source of data to enable the unique identification of the project.	Response to CAR 01 dated 1/02/2011 Magnitogorsk city. Industrial site of OJSC "MMK". Latitude: 53PP^{0} 26$^{/}$ 35.65$^{//}$ Longitude: 59^{0} 05$^{/}$ 19.93$^{//}$ (resource of the geographical coordinates – Google Earth). This is added in the PDD, version 1.2, page 5.	The Response to CAR 01 is accepted. The CAR is closed.	OK
A.4.2. Technologies to be employed, or measures, operations or actions to be implemented by the project					
A.4.2	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project,	Section A.4.2 PDD provides description of technology and measures to be implemented to gain proposed emission	Response to CL 02 dated 1/02/2011 In 2006 the actual output of steel by EAFP was 2206.3	The Response to CL is accepted. The CL is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	including all relevant technical data and the implementation schedule described?	reductions. **CL 02.** Please specify the technical yearly output of two EAF-180: - Table A.4.2-1 provides the following information: "Schedule of project implementation and output of steel"). It presents the output of two electric arc furnaces (EAF) №1, 2, LFA №2 (reconstruction of SRA №1), one slab CCM #5 as 2206.3 thous. tons including 1048.9 thous. tons by DBSU. - Information under the Table reads: "Two alternative current electric arc furnaces with capacity 180 tons each (EAF-180), with maximum output 2.035 million of liquid steel per year"; - On page 2 it is stated: "two high-capacity electric arc furnaces (EAF-180) manufactured by Austrian company "Voest-Alpine AG" with output capacity of 2 million tons of liquid steel per year	thousand tons, including 1048.9 tonnes of steel produced by existed DBSU #32 and 1157.4 by newly commissioned EAF-180. Maximum designed output of steel by one EAF-180 is 2.035.000 tones of liquid steel per year. The clarification has been added in the PDD, version 1.2, page 6.		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		each".			
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	Is it explained briefly how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page.)	The explanation is given as follows: "The proposed Joint Implementation project envisages a complex resource-saving effect from the transition to production of slab steel in the electric arc furnaces which is achieved by a large percentage of steel scrap in the charge of smelting furnaces in comparison with other methods of steel production (see PDD Section A4.3, Table. A.4.3-1). In the converter and pig-and-ore open-hearth steel production technique the pig iron, which production is associated with significant emissions of CO2, prevails in furnace charge. Scrap open-hearth process uses scrap metal as a main raw material but for furnace heating the significant amount of natural gas is used and	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		therefore this process is more resource and carbon intensive."			
A.4.3.1. Estimated amount of emission reductions over the crediting period					
A.4.3.1	Is the length of the crediting period Indicated? Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	**CAR 02.** The length of the crediting period is indicated to be four years (refer to PDD Section A.4.3.1) with indication as 0 for estimate of annual emission reductions in tonnes of CO2 equivalent in 2009. Meanwhile, on page 42 it is stated that length of the crediting period is indicated to be five years or 60 months. Please provide the consistency. The estimated total emission reduction over the crediting period is 2 110 493 of CO2 equivalent. Annual average of estimated emission reductions over the crediting period is 527 623 tons of CO2 equivalent (refer to PDD Section A.4.3.1, Table A.4.3.1)	Response to CAR 02 dated 1/02/2011 The length of the crediting period is 5 years 0 months / 60 months from 01.01.2008 to 31.12.2012. The estimated total emission reduction over the crediting period is 1 842 992 tons of CO_2 equivalent. Annual average of estimated emission reductions over the crediting period is 368 598 tons of CO_2 equivalent. The estimation of ERUs has been revised in version 1.2 of PDD to base it on most actual available data. This is indicated in the PDD, version 1.2, pages 9, 43.	CAR 02 is closed based on sufficient explanation in PDD.	OK
A.5. Project approval by the Parties involved					
A.5	Are written project approvals	**CAR 03.** The project has no	Response to CAR 03 dated	CAR 03 is open.	Pending

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	by the Parties involved attached?	approvals by the Parties involved.	1/02/2011 According to the current Russian JI rules it is possible to apply for Russian LoA only after receipt of the determination opinion.		
DVM					
Project approvals by Parties					
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	No, pending a response to CAR 03.	Pending	N/A	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	It is indicated that the Russian Federation is the host Party.	N/A	N/A	OK
19	Has the DFP of the host Party issued a written project approval?	Pending a response to CAR 03.	Pending	N/A	Pending
20	Are all the written project approvals by Parties involved unconditional?	The written project approvals by Parties involved are unconditional. Pending a response to CAR 03.	Pending	N/A	Pending
Authorization of project participants by Parties involved					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: − A written project approval by a Party involved, explicitly indicating the name of the legal entity? or − Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	Legal entity for Party A is OJSC "MMK" and for Party B is Carbon Trade & Finance SICAR S.A. These project participants will be authorized with the issue of related project approvals. Pending a response to CAR 03.	Pending	N/A	Pending
Baseline setting					
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	PDD explicitly indicates that a JI specific approach is used for identifying the baseline.	N/A	N/A	OK
JI specific approach only					
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	A generally detailed theoretical description in a complete and transparent manner is provided for the applied JI specific	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		approach (refer to Section B.1).			
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using	(a) Baseline setting includes the following steps: - Identification and listing of plausible baseline scenarios; - Identification of the most plausible scenario; - Identification and assessment of leakage in the baseline scenario (refer to Annex 2); Two alternative scenarios are listed in PDD Section B.1 namely: (1) Production of slab steel billet at the existing metallurgical works or newly introduced capacities (during the crediting period) in Russia other than EAFP of MMK; (2) Reconstruction of the open-hearth plant of MMK into EAFP and production of continuously casted slab steel billet in it. Alternative 1 is selected as the most plausible scenario thus	Response to CAR 04 dated 1/02/2011 The second alternative scenario of the proposed project activity is defined as: Reconstruction of the open-hearth plant of MMK into EAFP and production of continuously casted slab steel billet in it (project without registration as JI). In the investment analysis the economic indicators are also considered without ERU sales. This is added in the PDD, version 1.2, pages 11, 16, 36. Response to CAR 05 dated 1/02/2011 For the establishing the baseline and further	CAR 04 is closed. CAR 05 is closed. The key factors listed in PDD Section B.1, pp. 10 -11, bullets #	OK OK OK OK OK

* Report "Analysis of the expenditure of materials and process fuel by production of pig iron, steel and rolled iron at ferrous metallurgy works", "Corporation CHERMET", LLC

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	representing the baseline. **Also refer to CAR 04.** (b) PDD takes into account key factors that affect a baseline in accordance with "Guidance on criteria for baseline setting and monitoring" (refer to tabular data on pp. 18-34). Goals of development of steel industry, set in the official Strategy of development of the metallurgical industry of Russia until 2020 are taken into account with regard to the proposed JI project. **Also refer to CAR 05**. (c) The baseline is established generally in a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors. d) The baseline is established generally taking into account of	development of additionality proofs in the section B.2. we directly took into account: • Technological aspects of slab steel billets production. The description of the equipment used for the production of slab steel at the major Russian metallurgical works is presented below in Section B.1. • Local availability of technology/techniques and equipment Technological processes of steel production in open-hearth furnace, electric arc furnace and converter are very well known and used at the metallurgical works of Russia. • Price and availability of	3, 5, and 6 that affect the baseline are taken into account when setting the baseline. New PDD version is amended.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		uncertainties and using conservative assumptions. Refer to examples following point (f). **Also refer to CAR 06 and CAR 07.** (e) Emission reductions are not earned due to decrease of activity outside the project. (f) The baseline is established by drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring". Basic assumptions of the baseline methodology presented in Sections B.1, D.1.1.4. and Annex 2 are as follows: - As a key assumption it is taken that MMK would contribute to slab steel market with other Russian metallurgical giants to substitute 2.0 mln tonnes of slab steel produced in the absence of the project. **Also refer to CL 03.**	fuel For the production of slab steel billets natural gas, electricity and coke is used at the metallurgical works. All fuels are produced in Russia and available to metallurgical works. The addition was made in the PDD, version 1.2, page 11. Response to CAR 06 dated 1/02/2011 Baseline is established on the basis of the list of Russian metallurgical works with capacity for production of the slab steel billet. The list is created from the statistic report of "Corporation CHERMET", LLC, where steel production method for each metallurgical works and specific consumption of materials for steel production is indicated.	CAR 06 is closed based on material information and PDD amendments.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		- The availability of the major seven integrated steelworks giants on Russia steel market (according to the statistical data of "Corporation CHERMET", LLC) of production of 2 million tonnes of slab steel billet, required to substitute the project output during the implementation of EAFP project at MMK, is analyzed and a positive concussion is made, in order to understand how likely the additional production is ensured (refer to Section B.1, page 13 and Annex 2); - General CO2 emission factor for steel production is calculated for each metallurgical works of this group of metallurgical enterprises of Russia based on the share of each technique of steel production (converter, arc-furnace, pig-and-ore process, steel production in DBSU, scrap process) in the whole volume of	The statistic report includes all metallurgical works of Russia (producing slab steel, profiled steel, pipes and special steel). Specialized pipe mills and special steel works cannot be considered as the part of the baseline scenario (pipe mills smelt steel for own needs and special steel grades are made for different purpose than slab ones) and they were excluded from the list. The metallurgical works with capacity for production of the profiled steel billet only were excluded from the list. The remaining metallurgical works which form the final list used for baseline CO_2 emission calculation produce either slab steel or slab and profiled steel simultaneously. For them a general CO_2 emission factor for steel		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		steel output at the metallurgical works. Specific CO2 emissions from production of one ton of steel by each used technique are calculated separately based on statistic data of specific consumption of relevant carbon-bearing raw materials and energy source (consumption of pig iron, natural gas, electrodes, electricity, oxygen) and fixed ex-ante CO2 emissions factors for them; - Integrated CO2 emission factor for steel production at the Russian metallurgical works with capacity for production of slab steel billet is calculated based on general CO2 emission factor for steel production at each metallurgical works and the share of each metallurgical works with capacity for production of slab steel billet in the whole volume of steel output by this group metallurgical works of Russia;	production is calculated without differentiation for slab and profiled steel grades production. There are three metallurgical works in Russia which total production is higher that 50% of the whole volume (54-56% depending of the year*): • Oxygen-converter shop of MMK (EAFP of MMK is excluded as it is a project site); • Novolipetsk Steel Mill; • Cherepovets Steel Mill Two of these "giants", i.e. Oxygen-converter shop of MMK and Novolipetsk Steel Mill produce only slab steel therefore this category of product prevails for these plants. The share of oxygen-converter method of steel		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		Output of slab steel billet in EAFP of MMK and integrated CO2 emission factor for steel production at the Russian metallurgical works with capacity for production of slab steel billet are taken into account for estimation of the baseline emissions CO2 from slab steel production at the metallurgical works of Russia calculation. **Also refer co CL 03.** **CAR 04.** It is not indicated that the project activity without JI registration is included into the list of alternatives. **CAR 05.** The PDD does not provide evidence that that key factors listed in PDD Section B.1, pp. 10 -11, bullets # 3, 5, and 6 that affect the baseline are taken into account when setting the baseline. All the factors are applied to the proposed JI project only.	smelting for these plants is following: - Oxygen-converter shop of MMK – 100%, - Novolipetsk Steel Mill – 100% - Cherepovets Steel Mill – 85% (data of 2010). Therefore it may be definitely assumed that oxygen-convertor method dominates in slab steel production in Russia as other large metallurgical works producing slab steel billet also use the oxygen-converter technology as a main one. However to be conservative in the baseline emission estimation the PDD developer considers in the list metallurgical works all the enterprises with capacity to produce slab steel billet that in principle reduce integrated		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		CAR 06. The PDD does not provide evidence that the baseline is established taking into account of uncertainties and using conservative assumptions with regard to the estimation of baseline emissions CO2 from slab steel production at the metallurgical works of Russia by integrated CO2 emission factor for steel production at the Russian metallurgical works without differentiating of slab steel production therein. **CAR 07.** Please make transparent the estimation ex-ante of the integrated CO2 emission factor if statistic data of Corporation CHERMENT is not available (refer to page 17). To do so please consider the data for the emission factor from the ERU calculation excel sheet: 2008 – 1,103; 2009 – 1,132, 2010 – 1,177. The dimension is ton	CO_2 emission factor for steel production at the Russian metallurgical works due to use of mostly arc-furnace technology at the smaller works these days. Therefore it is more conservative not to differentiate the CO_2 emissions at the each plant for slab steel and profiled steel separately i.e. follow approach proposed in the PDD as for production of slab steel only the CO_2 emission in the baseline would be higher. This information was added into PDD, version 1.2 on page 18. <u>Response to CAR 07 dated 1/02/2011</u> If statistic data of Corporation CHERMET are not available, the value of integrated CO_2 emission factor for steel	CAR 07 is closed. For the case discussed, the value of integrated CO_2 emission factor for	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		CO2/ton steel. Please explain the increase of the integrated emission factor. **CL 03.** Please explain why **$P_{slab\ steel\ EAFP\ MMK}$** is monitored in the baseline instead of **$P_{slab\ steel\ convertor\ MMK}$**? PDD page 15 states that "in the absence of EAFP the converter shop of MMK could further smelt of around 1.400 tons (read ths. tons – AIE remark) of slab steel". This implies that other metallurgical works should produce around 600 ths tons only. Data for converter steel production at MMK in Table B.1-1 (8.218 ths. tons in 2009) and on "EF Integrated Calculation 2010" spreadsheet (2.284.9 ths. tons) do not comply. Please provide spreadsheets for 2008 and 2009.	production at the Russian metallurgical works will be ex-ante in line with conservative assumptions (the value of 2008 – 1.103 tons CO_2/ton steel). This situation is unlikely because MMK is one of the founders of Corporation CHERMET. According to statistic data of "Corporation CHERMET", LLC the share of steel, smelted by open-hearth technology is decreased for years due to decommissioning of this technology, and therefore the share of converter technology and electric arc technology is increased. Converter technology is characterized by a higher coefficient of CO_2 emissions per ton of steel, so the value of the integrated CO2 emission factor for steel production at Russian metallurgical works under the	steel production at the Russian metallurgical works will be ex-ante in line with conservative assumptions (the value of 2008 – 1.103 tons CO_2/ton steel).	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			project boundary is increased in 2010 (data for 3 quarters) compared with 2008 and 2009. <u>Response to CL 03 dated 1/02/2011</u> The analysis of output of oxygen-converter shop of MMK in 2001-2009 indeed has shown that in 2006 MMK increased the output of steel in this shop by 1.400.000 tones in comparison with 2004. But this only relates only to the analysis of alternatives to the project scenario and not for the methodology of baseline emission calculation. The phrase: "Thus in the absence of EAFP the converter shop of MMK could further smelt of around 1,400 million tonnes of slab steel" is ambiguous and has been deleted from the	CL 03 is closed due to sufficient explanation made in PDD.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			PDD version 1.2. Baseline is defined as production of slab steel billet at the existing metallurgical works or newly introduced capacities (during the crediting period) in Russia other than EAFP of MMK and for the reason of transparency the integrated CO_2 emission factor for steel production at the Russian metallurgical works considers all the works according to their share of the output in the total volume without any specific preference for convertor shop of MMK. This is convervative as the significant share of Russian steel currently is smelted in electric arc furnaces. The value of Integrated CO_2 emission factor for steel production at the Russian metallurgical works:		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			• 2008 – 1.103 tons CO_2/ton steel; • 2009 – 1.132 tons CO_2/ton steel; • 2010 – 1.148 tons CO_2/ton steel (up-dated in version of 1.2 of PDD by data for 3 quarters 2010).		
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	N/A			
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	N/A			
Approved CDM methodology approach only_Paragraphs 26(a) – 26(d)_Not applicable					
Additionality					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
JI specific approach only					
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent version of the "Tool	It is explicitly indicated that the approach in line with requirement 2(a) of Annex 1 of JI Guidance on criteria for baseline setting and monitoring, version 02 is applied for demonstrating additionality of the proposed project. AIE observes that the applied approach resembles the CDM Additionality Tool v.05.2.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".				
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	Sufficient justification of the applicability of the approach with a clear and transparent description is provided in Section B.2.	N/A	N/A	OK
29 (b)	Are additionality proofs provided?	PDD reads that "justification of additionality is done in several steps, after consideration of economic attractiveness of applicable to the selected baseline scenario". **Refer to CL 04.** As a preface to the additionality proofs a barrier analysis is carried out. Economic barriers *price and availability of scrap metal* were considered. It is reasoned that	Response to CL 04 dated 1/02/2011 Economic barrier – price and availability of scrap metal are applicable to the baseline. According to materials of "Corporation CHERMET", LLC of 2010 in Russia was dominated a converter steel production technique (see Figure B.2.1) and a main raw material for that is an iron (the consumption of scrap about	CL 04 is closed due to appropriate explanation made in PDD.	OK OK OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		project implementation would imply additional demand for scrap metal, which would have to be satisfied by external supplies. Based on statistic analysis of Russia steel market and economic circumstances, including the global financial crisis, a conclusion is made: "Implementation of the project scenario faces a significant barrier, which would be sufficient to press MMK to avoid the project on construction of EAFP complex with CCM # 5 and do not carry out the expensive reconstruction of the open-hearth furnace plant. At the same time the production of the slab steel billet on the existing metallurgical plants in Russia do not face a significant barrier". AIE observes that JI registration does not alleviate the above "significant barrier" influence of which shall be studied in the	20%). Therefore increasing the price of scrap is not a significant barrier to the production of slab steel billet on the existing metallurgical plants in Russia. (see the PDD, version 1.2, page 36). Response to CAR 08 dated 1/02/2011 Main parameters of the investment analysis: The cost of raw materials, energy resourses: 1. pig iron (liquid) – 3,750 rub/ton; 2. scrap metal – 3,268 rub/ton; 3. natural gas – 981 rub/ths.m^3; 4. electricity – 1,055 rub/ths.kWh; Total project investments – 7,643,188 ths. rub.	CAR 08 is closed. The requested information is added in PDD.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		sensitivity analysis. To prove additionality of the project investment and sensitivity analyses and common practice analysis were carried out. At first, the alternatives to the JI project activity are identified analogous to those in Section B.1 They are consistent with mandatory laws and regulations. The presented investment analysis is based on calculation of the revenue from sale (or purchase at the market) of 2 million tons of slab steel billet minus costs of its production at MMK. The provided spreadsheet shows that at benchmark 8% the proposed project is not economically attractive for MMK. **Refer to CAR 08.** Sensitivity analysis based on the variations in capital costs (±8%), prices for scrap (±5%) and the price of slab steel billet (± 5%)	Annual inflation – 12% Rate of discount – 8.0% Calculation horizon – 12 years Price for slab steel billet – 5,274 rub/ton The values of main parameters have been confirmed at the stage of determination by AIE and will be submitted to JISC as required after approval by the Parties involved. This is added in the PDD, version 1.2, pages 38, 39. <u>Response to CAR 09 dated 1/02/2011</u> The sensitivity analysis was carried out with variations +/- 10% in Section B.2. According to Guideline of efficiency assessment of the investment projects approved by Ministry of Economy, Ministry of Finance and Rosstroy of	CAR 09 is closed. The explanation is accepted and found appropriate.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		demonstrates the financial unattractiveness of the proposed project. **Refer to CAR 09**. Common practice analysis shows that the EAF technologies are not a common practice in Russia without the involvement of JI. All in all, a conclusion is made in PDD that the project is additional. **CL 04.** Please clarify whether "the consideration of economic attractiveness of alternative technologies implemented elsewhere in blast furnace process and at sintering plants" applies to the selected baseline scenario. In other words, are the above economic barriers applicable to the baseline? **CAR 08.** Present the investment analysis in a transparent manner as regards justification in PDD of: - input data for total investment	Russia by June 21, 1999 #VK 477. P. 10.5. the project is effective and financially sustainable, if at all possible scenarios of its development project economic indicators remain positive. In four of 6 variations one of the main economic indicator – NPV is negative. So we can conclude that the project is not financially attractive which confirms its additionality. This is added in the PDD, version 1.2, pages 39, 40.		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		cost with the break-down of main items; - input data for the cost of raw materials and energy resources; - input data for the price of slab steel billet; - benchmark of 8%. **CAR 09**. Carry out the sensitivity analysis with variations ±10% for all parameters but cost of scrap which should be varied in line with the trend in Table B.2-1.			
29 (c)	Is the additionality demonstrated appropriately as a result?	With the unresolved CAR 08, CAR 09 and CL 04 the additionality of the project activity is not demonstrated.	OK	N/A	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	N/A as the approach 28 (a) is chosen.	N/A	N/A	OK
Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable					
Project boundary (applicable except for JI LULUCF projects					
JI specific approach only					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	The project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants. (ii) Reasonably attributable to the project. (iii) Significant. These are: - Emission from the raw materials (carbon-containing materials: furnace charge, coking coal, pig iron, steel and fuels: blast furnace gas, coke oven gas, natural gas for slab steel production, electrodes) during the steelmaking process; - Electricity for for steel smelting in EAFs and electricity for oxygen and air blast generation production; - GHG emissions from the	Response to CAR 10 dated 1/02/2011 Lime and limestone are used to form the slag of the required composition and consistency. Slag provides the occurrence of oxidation reactions, the removal of harmful admixtures (particularly sulphur) and metal heating. Slag composition is regulated by addition of limestone during the period of charging and addition of lime during ore boil in the open-hearth furnace. For the purpose of formation the basic slag, binding phosphorus lime is added in the converter in the beginning of the blowdown. Blowing of carbon powder with lime	CAR 10 is closed. The justifications are accepted as appropriate. PDD amended.	OK

[*] http://www.d-s-r.ru/texts/Kolpakov%20S.V..pdf
[†] Report "Analysis of the expenditure of materials and process fuel by production of pig iron, steel and rolled iron at ferrous metallurgy works", "Corporation CHERMET", LLC

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		Russian electricity grid. **CAR 10.** Please justify the exclusions of CO2 emissions associated with use of lime and limestone the mentioned sources related both to the baseline and project scenarios (refer to para 16 in Guidance on Criteria for baseline setting and monitoring).	additive allows to utilize "foam melt slag" technology after the melting of charge at EAF-180 MMK. Lime (CaO) is produced from limestone ($CaCO_3$) by preliminary calcining in the special furnace where CO_2 molecules are emitted. Time of steel smelting is different for each technology: - 8-10 hours in the open-hearth furnace - around 2.5 hours in DBSU; - 45 minutes in converter; - 46-56 minutes in electric arc furnace. Therefore open-hearth furnaces and DBSUs consume mainly limestone while converter and electric arc furnaces mostly consume lime. According to data of		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			conference of the 60 years anniversary of the oxygen converter process (2006) the consumption of the lime in converter is generally 0.050-0.060 kg/kg steel. According to MMK historical data the consumption of the limestone in open-hearth furnace is 0.067 kg/kg steel (2002) and the consumption of the lime in EAFP is 0.047 kg/kg steel (2007). The share of steel production in baseline (data of 3 quarters 2010†) is following: 80% of steel is smelted in oxygen converters 15% of steel in electric arc furnaces, and 5% in open-hearth furnaces/DBSUs Therefore it is evident that in the baseline the consumption of lime/limestone would be		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			slightly higher and thus the exclusion the consumption of lime / limestone is acceptable and conservative. This is added in the PDD, version 1.2, page 42.		
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	Project boundary is defined on the basis of case-by-case analysis (not always quantitative) of emission sources. Pending a response to CAR 10.	OK	N/A	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of the project boundary and the gases and sources are included appropriately described and justified in the PDD by using a Tabular Form (refer to Section B.3. Table B.3-1). Pending a response to CL 01.	OK	N/A	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	All gases and sources are included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified in Section	OK	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		B1, Table B.3.1. Pending a response to CAR 10.			
Approved CDM methodology approach only_Paragraph 33_ Not applicable					
Crediting period					
34 (a)	Does the PDD state 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?	The starting date is defined as June 07, 2004 when investment into project was approved by OJSC MMK.	N/A	N/A	OK
34 (a)	Is the starting date after the beginning of 2000?	Yes, it is.	N/A	N/A	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	Operational lifetime is defined as 12 years or 144 months. The same period was studied in the investment analysis.	N/A	N/A	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is defined as 5 years or 60 months. Pending a response to CAR 02.	OK	N/A	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by	Starting day is 01/01/2008 which is the date of the first emission reductions generated by the project.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the project?				
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	The crediting period is defined as from 01/01/2008 till 31/12/2012.	N/A	N/A	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	N/A			
Monitoring plan					
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach; − Approved CDM	It is explicitly indicated that a JI specific approach is chosen.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	methodology approach.				
JI specific approach only					
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	The monitoring plan describes: - All relevant factors and key characteristics that will be monitored are described in Section D.1 using step-by-step approach in accordance with Appendix B to Decision 9/CMP.1 and JI Guidance on criteria for baseline setting and monitoring, Version 02. - The period in which they will be monitored are set in Section D.1.1.1 for the project and Section D.1.1.3 for the baseline. - All decisive factors for the control and reporting of project performance are described and monitored (refer to Section D.1, D.1.1.1 for the project and Section D.1.1.3 for the baseline.			
36 (b)	Does the monitoring plan specify the indicators, constants and variables used	The monitoring plan specifies the indicators, constants and variables used that are reliable,	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	valid and provide transparent picture of the emission reductions to be monitored. For data to be monitored, please refer to 36(a) above. For constants please refer to the next paragraph.			
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	Default value is used on the basis of 2006 IPCC and values supported by statistical analyses and conservative assumptions; presented in a transparent manner. The sources are recognized and supported with statistical data. The default values are presented in Section D.1, Table D.1-1 and D.1.2	N/A	N/A	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the	In PDD Section D.1, Table D.1-1 (parameters ##6, 7, 12; Table D.1.2, parameters ##1-4 is clearly	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	monitoring plan clearly indicate how the values are to be selected and justified?	indicated how the values that are to be provided by the project participants are to be selected and justified.			
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	The monitoring plan specifies the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions to be monitored. Carbon content of raw materials and fuels listed in Table D.1-1 is either stable or standardized (e.g. in steel and pig iron) or may vary insignificantly, and therefore based on conservativeness principle. The maximum value of carbon content in the benzol, tar, carbon-containing powder, etc was fixed ex-ante based on conservative IPCC data. The default value from IPCC Guidelines (2006) for carbon content in power station coal is used.	N/A	N/A	OK
36 (b) (iii)	For all data sources, does	All parameters included in the	OK	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the monitoring plan specify the procedures to be followed if expected data are unavailable?	monitoring plan are to be either monitored under regular operational practice or taken as constants with clear reference to all data sources and specify the procedures to be followed if expected data are unavailable. **SV 01.** Monitoring system reliability should be checked on site. Pending a response to CAR 06.			
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units (SI units) are used.	N/A	N/A	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	PDD, Sections B.1, D.1.1.3 and Annex 2 are identified $\mathbf{P_{slab\ steel\_EAFP}}$, *output of slab steel billet in EAFP,* as monitoring parameter that is used to calculate baseline emissions but obtained through monitoring. Pending a response to CL 03.	OK	N/A	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	There is consistency between parameters, coefficients, variables, etc. used in baseline and monitoring plan. Pending a response to CL 03.	OK	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring".	N/A	N/A	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (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? (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? (iii) Data and parameters that	Section D.1 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) such as: • Carbon content in raw materials and fuels; • CO2 emission factors for fuel combustion; • CO2 emission factors for iron production; • CO2 emission factors for electrodes consumption; • Electricity consumption for oxygen production. (ii) Data and parameters that that are not monitored throughout the	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	are monitored throughout the crediting period?	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: • CO2 emission factors for grid electricity produced by Unified Energy System players of Russia (7 Systems named in Table D.1.2). (iii) Data and parameters that are monitored throughout the crediting period presented in Section D.1.1.1 for the project and Section D.1.1.3 for the baseline.			
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	Methods used and data collection frequency and type of recording are clearly defined in the monitoring plan (refer to Section D.1.1.1 for the project and Section D.1.1.3 for the baseline).	N/A	N/A	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the	These are Formulae in Section D.1.1.4 for baseline emissions (Formulae D.1.1.4-1) and Section	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	estimation/calculation of baseline emissions/removals and project emissions/ removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	D.1.1.2 for project emissions (Formulae D.1.1.2.-33). Leakage in the production of slab steel billet in the baseline would be more than in the project due to technological reasons and they are not included for reasons of conservativeness approach. Thus, leakage is reasonably neglected (refer to Section D.1.3.2).			
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formulae is appropriately explained.	N/A	N/A	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Consistent variables, equation formats, and subscripts are used.	N/A	N/A	OK
36 (f) (iii)	Are all equations numbered?	Yes.	N/A	N/A	OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes.	N/A	N/A	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	Pending a response to CL 03	OK	N/A	OK
36 (f) (v)	To the extent possible, are	**SV 02**. Check the uncertainty	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	methods to quantitatively account for uncertainty in key parameters included?	level for estimation of key parameters against the meters certificates.			
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration on the baseline scenario and calculating the baseline emission in the spreadsheet.	N/A	N/A	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	There are no parts of the algorithms or formulae that are not self-evident in PDD.	N/A	N/A	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Yes, the monitoring is in line with current operational routines.	N/A	N/A	OK
36 (f) (vii)	Are references provided as necessary?	**SV 03.** Check the original data sources for all parameters used for monitoring.	N/A	N/A	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Pending a response to CL 03.	N/A	N/A	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures	N/A			

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	have significant uncertainty associated with them, and how such uncertainty is to be addressed?				
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	The uncertainty is not described in Table D.2 **SV 04.** Uncertainty of metering equipment shall be checked against manufacturer's certificates.	N/A	N/A	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	PDD Section D.1.5 provides explicit identification of main relevant Russian Federation environmental regulations which includes requirements to monitoring.	N/A	N/A	OK
36 (h)	Does the monitoring plan	N/A			

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	document statistical techniques, if used for monitoring, and that they are used in a conservative manner?				
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	QC/QA procedures are specified in PDD Section D.2. **SV 05.** Calibration procedures will be checked on site.	N/A	N/A	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The operational and management structure for GHG monitoring is described in PDD Section D.3, Diagram D.3.1. The responsibilities and the authority regarding the monitoring activities are provided in a tabular form within the Section D.3. **SV 06.** The authority/ responsibility distribution for data	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		collection, achieving and storing will be checked on site.			
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Monitoring techniques are in line with current operation routines at OJSC "MMK".	N/A	N/A	OK
36 (l)	Does the monitoring plan provide, 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 but not including data that are calculated with equations?	These data are provided in the PDD, Section D.2. Response to CAR 08.	OK	N/A	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last	PDD Section D3, page 100 indicates that "Keeping of all secondary reporting forms related to the monitoring of JI project (period from 1 January 2008 to	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	transfer of ERUs for the project?	December 31, 2012) shall be done until January 1, 2015. The Department for relations with state authorities and markets protection (JI project implementation coordinator) controls the completeness and timing of the reporting data allocation and monitors the changes in the reporting forms or procedures of monitoring".			
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?	N/A			
Approved CDM methodology approach only_Paragraphs 38(a) – 38(d)_Not applicable					
Applicable to both JI specific approach and approved CDM methodology approach_Paragraph 39_Not applicable					
Leakage					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
JI specific approach only					
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	Leakage is conservatively assumed to be neglected.	N/A	N/A	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	N/A			
Approved CDM methodology approach only_Paragraph 41_is Not Applicable					
Estimation of emission reductions or enhancements of net removals					
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	Assessment of emissions in the baseline scenario and in the project scenario is chosen. Option (a) is chosen.	N/A	N/A	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net	PDD provides ex ante estimates of: (a) Emissions for the project	Response 1 to CAR 11 dated 1/02/2011 Project CO_2 emissions are	CAR 11 is closed. Estimates of anthropogenic	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the pr oject boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	scenario (Section E.1); (b) Leakage (Section E.2); (c) Emissions for the baseline scenario (Section E.4); (d) Emission reductions adjusted by leakage (Section E.6). **CAR 11.** Please provide estimates of anthropogenic emissions of greenhouse gases by sources (coke, electrodes, natural gas, oxygen, steel billet, electricity, air blast, and pig iron) separately.	provided in tabular form for the follow sources: • Output of coke in BPCP for production of corresponding amount of pig iron • Output of pig iron in BFP for production of slab steel billet • Production of slab steel billet in EAFP • Electricity consumption by EAFs • Electricity consumption for production of consumed nitrogen, pure nitrogen, argon • Electricity consumption by other technological equipment (including DBSU) in the EAF plant • Electricity consumption for production of oxygen	emissions of greenhouse gases by sources (coke, electrodes, natural gas, oxygen, steel billet, electricity, air blast, and pig iron) are provided in tabular separately. PDD amended accordingly.	

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			• Consumption of air blast for production of corresponding amount of pig iron BaselineCO_2 emissions are provided in tabular form for the follow sources: • Consumption of pig iron for production of slab steel at Russian metallurgical works • Consumption of natural gas for production of slab steel at Russian metallurgical works • Consumption of oxygen for production of slab steel at Russian metallurgical works • Consumption of graphite electrodes for production of slab steel at Russian metallurgical works • Consumption of electricity		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
			for production of slab steel at Russian metallurgical works Detailed information with figures is the PDD, version 1.2, pages 109, 112.		
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	N/A			
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-	(a) Estimates in 43 are given on the periodic basis, from the beginning until the end of the crediting period, in tones of CO2 equivalent. Response to CAR 09. (b) The formulae used in PDD	Response 1 to CAR 12 dated 1/02/2011 Project emissions for 2010 were calculated with formulae of Section D.1.1.2 using the MMK's actual values of monitoring parameters for six	CAR 12 is closed. The explanation to the calculation approach is found appropriate.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	source/sink-by-sink basis? (iv) For each GHG? (v) In tones 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? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used	are consistent. (c) Key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project are taken into account. (d) Data sources used for calculating the estimates both for project and baseline are briefly described through the text in Section E.1. **CAR 12.** Please clearly identify each data source in E.1. (e) Emission factors (including default emission factors) used for calculating the estimates both for project and baseline are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice in PDD. (f) The estimation both for project and baseline are based on conservative assumptions and the	months of 2010 in annualized terms (except slab steel billet production data). The source of data of output of slab steel billet in EAFP of MMK in 2010 – the monthly technical report of EAFP (actual data for 12 months), in 2011 – Annual production programme of MMK (dated January 2011), in 2012 – Strategic programme of MMK. Respective data sources are added in the PDD, version 1.2, page 106.		

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or	most plausible scenarios in a transparent manner. (g) The estimates both for project and baseline are consistent throughout the PDD (h) The annual average of estimated emission reductions calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period and multiplying by twelve.			

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?				
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Illustrative ex-ante estimation of baseline emissions is made on the spreadsheet made available to AIE.. Refer to section E.4 and Annex 2.	N/A	N/A	OK
Approved CDM methodology approach only_Paragraphs 47(a) – 47(b)_Not applicable					
Environmental impacts					
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	PDD Section F.1 lists and attaches documentation on the analysis of the environmental impacts of the project, in accordance with procedures as determined by the host Party. Transboundary impacts are not applicable to the project (Refer to 48 (b).	N/A	N/A	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are	The project has obtained the following approvals: • The decision №394 of State	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	Environmental Expertise Authority on EIA document "Reconstruction of open-hearth furnace plant at MMK" of 05.07.2004. This decision was approved by the Order №658 of Chelyabinsk Regional Department for Environmental Resources and Environmental Protection of MNR. • The decision №130 of State Environmental Expertise Authority on Technical Design "Reconstruction of open-hearth furnace process at MMK. Electric arc furnace plant complex" of 30.05.2006. This decision was approved by the Order №303 of Chelyabinsk Regional Department of Rostekhnadzor. The technical solutions under the proposed project will reduce its environmental impacts and have the following effects: - Compliance with environmental			

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		requirements, reduction of emissions of air pollutants; - Prevention of pollution of water basins above the applicable environmental standards; - Compliance with noise and vibration standards; - Prevention of pollution of territory, surface and ground waters provided that the requirements for industrial waste storage, disposal and utilization are met. The project does not have any significant negative impacts on the environment. Furthermore, the project leads to a decrease of waste generation and thus to a reduction of GHG emissions. Transboundary effects were not determined by the PDD developers with explanation that due to project implementation and realization of several environmental measures which			

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		are maintained on OJSC "MMK" (also reference to PDD Section F.1), the impact of MMK on the ambient air is regional by nature.			
Stakeholder consultation					
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	Stakeholder consultation is not required by the Russian legislation. According to the local procedure OJSC "MMK" published information about the project in mass media. List of publications is presented in PDD Section G.1. **SV 07.** Check and collect evidence to confirm the project has appropriate system of stakeholders informing and gathering of comments.	N/A	N/A	OK
Determination regarding small-scale projects (additional elements for assessment)_Paragraphs 50 - 57_Not applicable					
Determination regarding land use, land-use change and forestry projects _Paragraphs 58 – 64(d)_Not applicable					
Determination regarding programmes of activities_Paragraphs 66 – 73_Not applicable					