DETERMINATION REPORT
SIA "VIDZEME EKO"

DETERMINATION OF THE DISMANTLING OF WASTE HEAP #5 AT "KURAHIVSKA" MINE

REPORT NO. UKRAINE-DET/0851/2012

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Date of first issue: 01/12/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: SIA "Vidzeme Eko"	Client ref.: Victor Tkachenko

Summary:

Bureau Veritas Certification has made the determination of the "Dismantling of waste heap #5 at "Kurahivska" mine" project of SIA "Vidzeme Eko" located in Kurakhivka village, Maryinskiy District, Donetsk Region, Ukraine 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 Action Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

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

Report No.: UKRAINE-det/0851/2012	Subject Group: JI
Project title: Dismantling of waste heap #5 at "Kurahivska" mine	
Work carried out by: Svitlana Gariyenchyk - Team Leader, Lead Verifier Vyacheslav Yeriomin – Team Member, Verifier	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Vasyl Kobzar – Technical Specialist	
Work approved by: Ivan Sokolov - Operational Manager	
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Indexing terms

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1 INTRODUCTION

SIA "Vidzeme Eko" has commissioned Bureau Veritas Certification to determine its JI project "Dismantling of waste heap #5 at "Kurahivska" mine" (hereafter called "the project") at Kurakhivka village, Maryinskiy District, Donetsk Region, Ukraine.

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 emission reduction 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:

Svitlana Gariyenchyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

Vyacheslav Yeriomin
Bureau Veritas Certification Climate Change Verifier

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal reviewer

Vasyl Kobzar
Bureau Veritas Certification, Technical Specialist

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 SIA "Vidzeme Eko" 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, Approved CDM methodology and/or 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, SIA "Vidzeme Eko" revised the PDD and resubmitted it on 30/11/2012.

The determination findings presented in this report relate to the project as described in the PDD version(s) 2.0.

2.2 Follow-up Interviews

On 01/12/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of PJSC "Krasnoperekopsky glass factory" and SIA "Vidzeme Eko" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC "Krasnoperekopsky glass factory"	➢ Project History ➢ Project Approach ➢ Project boundary ➢ Implementation Schedule ➢ Organization structure ➢ Authorities and responsibilities ➢ Training of personnel ➢ Quality management procedures and technologies ➢ Records on rehabilitation/implementation of equipment ➢ Metering equipment control ➢ Metering record keeping system, database ➢ Technical documentation ➢ Monitoring plan and procedures ➢ Permits and licenses
CONSULTANT SIA "Vidzeme Eko"	➢ Baseline methodology ➢ Monitoring plan ➢ Additionality proofs ➢ Calculation of emission reductions

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.

If the determination team, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI project requirements, it will raise these issues and inform the project participants of these issues in the form of:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake in the published PDD that is not in accordance with the

(technical) process used for the project or relevant JI project requirement or that shows any other logical flaw;

(b) Clarification request (CL), requesting the project participants to provide additional information for the determination team to assess compliance with the JI project requirement in question;

(c) Forward action request (FAR), informing the project participants of an issue, relating to project implementation but not project design, that needs to be reviewed during the first verification of the project.

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

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

3 PROJECT DESCRIPTION

Proposed project consists in full dismantling of waste heap #5 of "Kurahovska" mine with sorting and enrichment of obtained coal containing rock mass.

Boundaries of proposed project cover one dismantled waste heap and enrichment plant #105. "Krasnoperekopsk glass factory" Ltd is owner of waste heap and processes coal containing rock mass at enrichment plant #105, on sub-contract relations basis.

Technologies employed in the project activity are described below

Bulldozers rise to the top of the dump on its tail section. Dismantling of dump with bulldozers is carried by horizontal layers, after lowering the height of dump to 25-30 m, allowed dismantling by slope (15 °) layers. A combined method for the dump dismantling is used, when after decline by bulldozers to lower layer height, in which entrance road can be constructed, further dismantling is carried out by excavators with direct loading rock into vehicles (dump trucks).

On the second stage, the rock mass is delivered to the enrichment plant #105 for further enrichment. The rock mass is supplied to the inertial screening sifter for the pre-classification by class of 100 mm. After the pre-classification, the coal mass delivered to the preparatory screening to sifter GIL-52a by dry or wet mode. Beneficiation of large class 13 mm is made on heavy media separator STK 32-55010, and beneficiation of small class 3-13 mm - at hydrocyclone GTSM-63011. Next, washing of the suspension of beneficiation products and dehydrating products by dressing screens and centrifuge take place, regeneration suspension at electromagnetic separator. Thus the water in this process is used in

closed loop. Beneficiation products (coal concentrate) are transported by conveyor belt into bins for further shipment to the consumer. Waste is transported to the flat dump

The proposed project is aimed at reducing anthropogenic emissions. Emission reductions created by:
- Elimination of greenhouse gases sources associated with waste heaps burning, by extracting coal from the rock dumps;
- Reduction of uncontrolled methane emissions due to replacement of coal that would have been extracted through mining;
- Reduction of electricity consumption at waste heap dismantling in comparison to electricity consumption at coal mine.

Identified problem areas for project descriptions, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (refer to CAR01-CAR04)

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 15 Corrective Action Requests and 0 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 already received Letter of Endorsement #2904/23/7 dated 04/10/2012 issued by State Environmental Investment Agency.
The Bureau Veritas Certification obtained Letter of Endorsement from SIA "Vidzeme-Eko" and doesn't doubt in its authenticity.
As for this time no written project approvals of the project from the Parties Involved are available (see CAR05 pending till the Host Party LoA received). After receiving Determination Report from the Accredited Independent Entity (AIE) project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environment Investment Agency for receiving the Letter of Approval.
The written approvals from the other Party will be obtained later on.

Identified problem areas for written project approvals, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (refer to CAR05).

4.2 Authorization of project participants by Parties involved (21)

In accordance with paragraph 21 of the DVM the assessment of this area focuses on whether each of the legal entities listed as project participants in the PDD is authorized by a Party involved, which is also listed in the PDD.

Authorisation of the project participants by Parties involved is expected through a written project approval, see CAR05 that is pending

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.

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:

Scenario 1. Continuation of existing situation

This scenario does not anticipate any activities and therefore does not face any barriers.

Scenario 2. Direct energy production from the heat energy of burning waste heap

Technological barrier:

This scenario is based on the highly experimental technology, which has not been implemented even in a pilot project. It is also not suitable for all waste heaps as the project owner will have to balance the energy resource availability (i.e. waste heap location) and the location of the energy user. On-site generation of electricity addresses this problem but requires additional interconnection engineering. In general this technology has yet to prove its viability. In addition it does not allow the control and management of the emitted gases. This technology can be applied only in the presence of dumps with developed combustion centre. Even if the probability of burning rock dump is very high, it is currently impossible to

predict the time of its outbreak and therefore predict the start of the use of thermal energy released during its combustion.

Investment barrier:
Investment into unproven technology carries a high risk. In case of Ukraine, which carries a high country risk, investment into such unproven energy projects are less likely to attract investors than some other opportunities in the energy sector with higher returns. The pioneering character of the project may appeal to development programmes and governmental incentives but cost of the produced energy is likely to be much higher than alternatives.

Scenario 3. Production of construction materials from waste heap matter
Technological barrier:
This scenario is based on known technology, however, this technology is not currently available in Ukraine and there is no evidence that such projects will be implemented in the near future. It is also not suitable for all types of waste heaps as the content of waste heap has to be predictable in order for project owner to be able to produce quality materials. High contents of sulphur and moisture can reduce the suitability of the waste heap for processing. A large scale deep exploration of the waste heap has to be performed before the project can start.

Scenario 4. Coal extraction from waste heaps without JI incentives
Investment barrier: This scenario is financially unattractive and faces barriers. Detailed description of proposed scenario barriers is provided in the section B.2 of the PDD version 2.0.

Scenario 5. Systematic monitoring of waste heaps condition and regular fire prevention and extinguishing measures
Investment barrier: This scenario does not represent any revenues but anticipates additional costs for waste heaps owners. Monitoring of the waste heap status is not done systematically and in general actions are left to the discretion of the individual owners. Waste heaps are mostly owned by mines or regional coal mining associations. Coal mines in Ukraine suffer from limited investment resulting often in safety problems due to complicated mining conditions and financial constraints, with miners' salaries often being delayed by few months. Waste heaps in this situation are considered as additional burdens and mines often do not even perform minimum required maintenance. Exact data are not always available. From a commercial view point the fines that are usually levied by the authorities are considerably lower than costs of all the measures outlined by this scenario.

(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:

(c) 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 comprehensive analysis and an in-depth description of the reform policies and legislation concerning the development and reforming of the Ukrainian coal industry. At this time effective united complex state program for prevention of waste heaps burning and reclamation with extraction of coal is absent. Fines paid by pollution costs much less than money spent on measures to prevent ignition or burning For this time 83 % of Donetsk Region waste heaps burned or burning.

- Describing economic situation. Inner coal market in Ukraine is significantly controlled by Ukrainian government, which is owner of number of mines and significantly influencing on coal costs. Level of coal content in waste heap is difficultly predicted, and "Krasnoperekopsky glass factory" Ltd is a small company which cannot supply coal in big quantities in long range time.
- As far as availability of capital there is a summary of key indicators of business practices in Ukraine as well as a comparison country risk premiums for Ukraine, and Russia are provided by the PP's vividly demonstrating that Ukraine has been always considered a high-risk country for investments and doing business, which extremely limits the opportunities of the project as for its access to financial resources at the international level.
- It is stated by the project participants that modern technologies and best practices existing in the developed countries are unavailable due to their high cost and necessity of the knowledgeable personnel able to introduce and operate the equipment.
- As far as the fuel prices and its availability, the PDD states that electricity and diesel fuel are widely used in Ukrainian industry. Prices for diesel fuel that is mostly imported from the Russian Federation are regulated by Ukrainian Government. Electric energy in Ukraine is produced at the thermal and nuclear power stations mainly by use of fossil fuel. Wholesale Electricity Market of Ukraine is managed by the state enterprise "Energorynok"; the level of prices for electric energy ranges greatly for different types of consumers.

(c) In such a way that emission reduction units (ERUs) cannot be earned for decreases in activity levels outside the project activity or due to force majeure. According to the proposed approach emission reductions will be earned only when project activity will generate coal concentrate, so no emission reductions can be earned due to any changes outside the project activity.

(d) Taking into account uncertainties and using conservative assumptions such as the following:

- Lower range of parameters is used for calculation of baseline emissions and higher range of parameters is used for calculation of project activity emissions;
- Default values were used to the extent possible in order to reduce uncertainty and provide conservative data for emission calculations.
- The emissions of nitrous oxide have not taken into consideration for conservatism

For more details, please, refer to Section B.1. of the PDD.

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y}\ , \qquad (1)$$

Where:
$BE_{WHB,y}$ - baseline emissions due to burning of the waste heap in the year *y* (tCO2 equivalent),

Baseline emissions due to burning dumps in year y calculated by the formula:

$$BE_{WHB,y} = FC_{BE,Coal,y}/1000 \cdot \rho_{WHB} \cdot NCV_{Coal} \cdot OXID_{Coal} \cdot K_{Coal}^{c} \cdot 44/12 \qquad (2)$$

where:
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heap because of the project activity in the year *y,* t;
ρ_{WHB} - probability of waste heap burning , d/l;
NCV_{Coal} - net Calorific Value of coal, TJ/kt;
$OXID_{Coal}$ - carbon Oxidation factor of coal, d/l;
K_{Coal}^{c} - carbon content of coal, tC/TJ;
1/1000 - conversion factor from tons in kilotonnes, d / l
44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.

The amount of coal produced in mines in the baseline scenario is calculated by the formula:

Identified problem areas for baseline for baseline setting, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (refer to CAR06-CAR08)

4.4 Additionality (27-31)

The project "Dismantling of Waste Heap #54 at Former "Dzerzhynskogo" project ITL UA1000447 is selected as the comparable JI project. Accredited independent entity has already positively determined that it would result in a reduction of anthropogenic emissions by sources or an enhancement of net anthropogenic removals by sinks that is additional to any that would otherwise occur. This determination has already been deemed final by the JISC. Appropriate documentation such as PDD and Determination Report regarding this project is available traceably and transparently on the UNFCCC JI Website.

http://ji.unfccc.int/JIITLProject/DB/C4QXRZ17KUWJDAGT6G9GJXKCBRLAOZ/details

Additionality of the project was demonstrated adequately by demonstrating that the indicated project is implemented under comparable circumstances:

a) Both projects propose **same GHG mitigation measure:** The proposed GHG mitigation measure under both projects is coal extraction from the mine's waste heaps. This will prevent greenhouse gas emissions into the atmosphere during combustion of the heaps and will contribute an additional amount of coal, without the need for mining. Criteria is satisfied

b) Both projects are implemented within the **same country and the same time**: The proposed project and identified comparable project are both located in Ukraine, project crediting periods are divided less than 1 year. Criteria is satisfied

c) **Scale.** The difference between the proposed project and the other project(s) is less than 50 per cent in terms of the projects output (i.e. power output, capacity increase, etc.) or service provided.
The projects envisage production of the same product (coal concentrate). Both projects use similar technological equipment (vibrating sieves GIL-52, heavy media separators STK and hydrocyclones GTsM). Capacity of both projects are limited by coal contains in the waste heap and waste heaps size and is different about 10% for both comparing projects with work in two-shift regime. Criteria is satisfied

d) There were no significant changes in **regulatory framework** between the starting dates of two projects. Criteria is satisfied.

The desk review of provided information and follow-up interviews enabled Bureau Veritas Certification Holding SAS to assess that all explanations, descriptions and analyses in the demonstration of additionality were made in accordance with criteria of "Guidance on criteria for baseline setting and monitoring" version 03 and this projects is indeed comparable project, implemented under comparable circumstances. The proposed JI activity provides the reductions in emissions by sources that are additional to any that would otherwise occur.

4.5 Project boundaries

The details on the project boundary were provided in section B.3 of the PDD. The desk review of submitted documentation enabled Bureau Veritas Certification to assess that the project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are:

- Under the control of the project participants;
- Reasonably attributable to the project; and
- Significant.

The baseline emission sources of GHGs that are included in the project boundaries are listed below. Emissions of carbon dioxide due to:
- Waste heap burning;
- Consumption of coal for energy production (excluded, does not take into the consideration in calculation).

The project emission sources of GHGs that were included in the project boundaries are listed below. Emissions of carbon dioxide due to:
- Consumption of fossil fuel (diesel fuel) due to extracting coal from dump;
- Consumption of coal for energy production (excluded, does not take into the consideration in calculation).

Leakages:
- Fugitive emissions of methane in the mining activities;
- Consumption of electricity from a grid at coal mine.
- Consumption of electricity due to enrichment coal from dump;
- Use of other types of energy sources due to mining (excluded).

All gases and sources included in the project boundary were explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified and provided in Table 14 of the PDD.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD by using Figures 9-10 in section B.3 of the PDD.

Identified problem areas for project boundaries, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (refer to CAR09)

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the waste heap dismantling began, and the starting date is 05/05/2008, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 7 years and 8 months or 92 months.

The PDD states the length of the crediting period in years and months, which is 4 years and 8 months or 56 months, and its starting date is 05/05/2008, which is on the date the first emission reductions or enhancements of net removals are generated by the project.

The PDD states that the crediting period for the issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of 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 or enhancements of net removals are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

Identified problem areas for project crediting period, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (refer to CAR10)

4.7 Monitoring plan (35-39)

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

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 value of extracted coal, values of consumed electricity, diesel fuel.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. are

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 as Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine.

The monitoring plan draws on the list of standard variables indicated in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC.

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 Global Warming potential of the Methane, Methane Density, Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine

(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 absent.

(iii) Data and parameters that are monitored throughout the crediting period, such as Additional amount of electricity consumed in project, amount of diesel fuel consumed in project year, value of produced coal.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as direct monitoring of electricity consumption by meters, sampling of produced coal, etc. Description of employed methods is provided in the section D.1 of the PDD.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate, such as described below

The annual emission reductions are calculated as follows:

$$ER_y = BE_y – PE_y - LE_y, \quad (3)$$

where:
ER_y - emissions reductions of the JI project in year y (tCO2 equivalent);
BE_y - baseline emission in year y (tCO2 equivalent);
PE_y - project emission in year y (tCO2 equivalent);
LE_y - leakages in year y, (tCO2 equivalent).

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y}\ , \quad (4)$$

Where:
$BE_{WHB,y}$ - baseline emissions due to burning of the waste heap in the year *y* (tCO2 equivalent),

Baseline emissions due to burning dumps in year y calculated by the formula:

$$BE_{WHB,y} = FC_{BE,Coal,y}/1000 \cdot \rho_{WHB} \cdot NCV_{Coal} \cdot OXID_{Coal} \cdot K_{Coal}^{c} \cdot 44/12 \quad (5)$$

where:
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the wast heap because of the project activity in the year *y,* t;
ρ_{WHB} - probability of waste heap burning , d/l;
NCV_{Coal} - net Calorific Value of coal, TJ/kt;
$OXID_{Coal}$ - carbon Oxidation factor of coal, d/l;
K_{Coal}^{c} - carbon content of coal, tC/TJ;
1/1000 - conversion factor from tons in kilotonnes, d / l
44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.

Emissions from the project activity are calculated as follows:

$$PE_y = PE_{Diesel,y} \quad (6)$$

where:
PE_y - project emissions due to project activity in the year *y* (tCO2 equivalent),

$PE_{Diesel,y}$ - project emissions due to consumption of diesel fuel by the project activity in the year *y* (tCO2 equivalent).

Project emissions due to consumption of diesel fuel by the project activity in the year y are calculated as follows:

$$PE_{Diesel,y} = FC_{BE,Diesel,y}/1000 \cdot NCV_{Diesel} \cdot OXID_{Diesel} \cdot K_{Diesel}^{c} \cdot 44/12 \quad (7)$$

where:
$FC_{BE,Diesel,y}$ - amount of diesel fuel, consumed in project in year y, t;
NCV_{Diesel} - Net Calorific Value of diesel fuel, TJ/kt;
$OXID_{Diesel}$ - carbon Oxidation factor of diesel fuel, d/l;
K_{Diesel}^{c} - carbon content of diesel, tC/TJ;
44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.
1/1000 - conversion factor from tons in kilotonnes, d / l

Leakages in year y are calculated as follows:

$$LE_y = LE_{B,y} + LE_{P,y} \quad (8)$$

where::
LE_y - leakages in year y, (t CO2e);
$LE_{B,y}$ - leakages in the baseline scenario in the year *y*, (t CO2e);
$LE_{P,y}$ - leakages in project scenario in a year y,(t CO2e);

Leakages in the baseline scenario in the year y are calculated as follow

$$LE_{B,y} = LE_{CH4,y} + LE_{EL,y} \quad (9)$$

Leakages due to fugitive emissions of methane in the mining activities in the year *y* are calculated as follows:

$$LE_{\boldsymbol{CH4},y} = - FC_{BE,Coal,y} \cdot EF_{CH4} \cdot \rho_{CH4} \cdot GWP_{CH4} , \quad (10)$$

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the sludge depository because of the project activity in the year *y,* t;
EF_{CH4} - emission factor for fugitive methane emissions from coal mining, m3/t;
ρ_{CH4} - methane density at standard conditions t/m3;
GWP_{CH4} - Global Warming Potential of Methane, tCO2/ tCH4.

Leakages due to consumption of electricity from a grid at coal mine in a year y are calculated as follows:

$$LE_{B,EL,y} = - FC_{BE,Coal,y} \cdot N_{Coal,y}^{E} \cdot EF_{CO2,EL,y} \quad (11)$$

Where
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y*, t;
$N_{Coal,y}^{E}$ - Average electricity consumption per tonne of coal, produced in Ukraine in the year y, MWh/t;
$EF_{CO2,EL,y}$ - Specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/MWh

Leakages in project scenario in a year *y* are calculated as follow:

$$LE_{P,y} = LE_{P,EL,y} \quad (12)$$

Where
$LE_{P,EL,y}$ - leakages due to consumption of electricity from a grid at benefication plant in a year y,(t CO2e)

$$LE_{P,EL,y} = - FC_{BE,Coal,y} \cdot N_{P,Coal,y}^{E} \cdot EF_{CO2,EL,y} \quad (13)$$

Де
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y*, t;
$N_{P,Coal,y}^{E}$ - average electricity consumption per tonne of coal for the processing technology of rock on the benefication plant, MW/t;
$EF_{CO2,EL,y}$ - specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/MWh;

The monitoring plan presents the quality assurance and control procedures for the monitoring process described in the section D.2 of the PDD. This includes, 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. Clear and transparent scheme of monitoring data flow is provided in the section D.3 of the PDD.

On the whole, the monitoring plan 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 (e.g. official statistics, expert judgment, proprietary data, IPCC,

commercial and scientific literature etc.) 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.

Identified problem areas for project monitoring plan, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A to the Determination Report (refer to CAR13)

4.8 Leakage (40-41)

This project will result in a net change in fugitive methane emissions due to the mining activities. As coal in the baseline scenario is only coming from mines it causes fugitive emissions of methane. These are calculated as standard country specific emission factor applied to the amount of coal that is extracted from the waste heaps in the project scenario (which is the same as the amount of coal that would have been mined in the baseline scenario. Source of the leakage are the fugitive methane emissions due to coal mining. These emissions are specific to the coal that is being mined. Coal produced by the project activity is not mined but extracted from the waste heap through the advanced beneficiation process. Therefore, coal produced by the project activity substitutes the coal would have been otherwise mined in the baseline. Coal that is mined in the baseline has fugitive methane emissions associated with it and the coal produced by the project activity does not have such emissions associated with it.

As reliable and accurate national data on fugitive CH4 emissions associated with the production of coal are available, project participants used this data to calculate the amount of fugitive CH4 emission as described below.

This leakage is measurable: through the same procedure as used in 2006 IPCC Guidelines (See Volume 2, Chapter 4, Page 4-11) and also used in CDM approved methodology ACM0009, Version 4.0.0. Activity data (in our case amount of coal extracted from the waste heap which is monitored directly) is multiplied by the emission factor (which is sourced from the relevant national study – National Inventory Report of Ukraine under the Kyoto Protocol) and any conversion coefficients.

Electricity consumption and related greenhouse gas emissions due to dismantling of waste heap to be taken into account in calculating the project emissions. Carbon dioxide emissions due to electricity consumption in the coal mine way in an amount, equivalent to the design of coal - a leakage that can be taken into account at base of the State Statistics Committee data, concerning unit costs of electricity at coal mines in Ukraine in the relevant year.

This leakage is directly attributable to the JI project activity according to the following assumption: the coal produced by the project activity from the waste heap will substitute the coal produced by underground mines of the region in the baseline scenario. This assumption is explained by the following logic: Energy coal market is demand driven as it is not feasible to produce coal without demand for it. Coal is a commodity that can be freely transported to the source of demand and coal of identical quality can substitute some other coal easily. The project activity cannot influence demand for coal on the market and supplies coal extracted from the waste heaps. In the baseline scenario demand for coal will stay the same and will be met by the traditional source – underground mines of the region. Therefore, the coal supplied by the project in the project scenario will have to substitute the coal mined in the baseline scenario. According to this approach equivalent product supplied by the project activity (with lower associated specific green-house gas emissions) will substitute the baseline product (with higher associated specific green-house gas emissions). This methodological approach is very common and is applied in all renewable energy projects (substitution of grid electricity with renewable-source electricity), projects in cement sector (e.g. JI0144 Slag usage and switch from wet to semi-dry process at JSC "Volyn-Cement", Ukraine), projects in metallurgy sector (e.g. UA1000181 Implementation of Arc Furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk Region) and others.

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

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

The PDD provides the ex ante estimates of:

(a) Emissions or net removals for the project scenario (within the project boundary), which are 83 380 tonnes of CO2eq for period 05/05/2008-31/12/2012 and 53 244 tonnes of CO2eq for period 01/01/2013-31/12/2015;

(b) Leakage, as applicable, which are -681 206 tonnes of CO2eq for period 05/05/2008-31/12/2012 and -428 241 tonnes of CO2eq for period 01/01/2013-31/12/2015;

(c) Emissions or net removals for the baseline scenario (within the project boundary), which are 2 487 610 tonnes of CO2eq for period 05/05/2008-31/12/2012 and 1 577 814 tonnes of CO2eq for period 01/01/2013-31/12/2015;

(d) Emission reductions or enhancements of net removals adjusted by leakage (based on (a)-(c) above), which are 3 085 436 tonnes of CO2eq for period 05/05/2008-31/12/2012 and 1 952 811 tonnes of CO2eq for period 01/01/2013-31/12/2015.

The PDD provides the ex ante estimates of:

The estimates referred to above are given:

(a) On a yearly basis;

(b) From 05/05/2008 to 31/12/2015, covering the whole crediting period;

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

(d) For each GHG gas, which is CO2, CH4

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

The formula used for calculating the estimates referred above, which are described in the section 4.7 of this Determination Report, are consistent throughout the PDD.

For calculating the estimates referred to above, key factors, e.g. local prices for electricity, coal and diesel fuel, available production resources, 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 were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as work and laboratory logbooks, work and laboratory monthly and yearly reports, production sailing invoices are clearly identified, reliable and transparent.

Emission factors, such as emission factor for electricity consumption, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, etc, were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

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

The estimates referred to above are consistent throughout the PDD.

The annual average of estimated emission reductions or enhancements of net removals over the crediting period is calculated by dividing the total

estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period, and multiplying by twelve.

Identified problem areas for project monitoring plan, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A to the Determination Report (refer to CAR15)

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as permit on pollutant by stationary sources, analysis of the environmental impacts, a part of separation fabric work project which is mentioned in the PDD.

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, if the analysis referred to above indicates that the environmental impacts are considered significant by the project participants or the host Party.

The problem areas for environmental impacts of the project were not identified

4.11 Stakeholder consultation (49)

The host Party for the project is Ukraine. The project meets the applicable standards and requirements, set forth in Ukraine. The Host Party does not put forward the requirement to consult with stakeholders to JI projects. The project was presented to the local authorities, and was approved (approval on building, etc).

Any comments from local authorities or stakeholders were not obtained.

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Dismantling of waste heap #5 at "Kurahivska" mine" Project in Kurahivka village, Mariinskiy district, Donetsk Region, Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

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

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 2.0 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation (version 2.0) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

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

7 REFERENCES

Category 1 Documents:
Documents provided by SIA "Vidzeme Eko" that relate directly to the GHG components of the project.

/1/ Project Design Document "Dismantling of waste heap #5 at "Kurahivska" mine" version 1.0 dated 05/10/2012
/2/ Project Design Document "Dismantling of waste heap #5 at "Kurahivska" mine" version 2.0 dated 30/11/2012
/3/ ERUs calculation Excel-file "Calculation_T24_.xls"
/4/ Letter of Endorsement #2904/23/7 dated 04/10/2012 issued by State Environment Investment Agency of Ukraine

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

/1/ Delivery Agreement #815 from 10/03/08 between "Stulnevskyy Granite Quarry" Ltd. and PE "Donvugillyapostachannya".
/2/ Subcontract #685 from 10/03/08 between "Stulnevskyy Granite Quarry" Ltd. and "Donvuglezbagachennya" Ltd.
/3/ Contract for work #735 from 10/03/08 between PJSC "Krasnoperekopsky glass factory" and "Stulnevskyy Granite Quarry" Ltd.
/4/ Attestation Certificate # 295 of chemical laboratory, "Enrichment plant #105" Ltd.
/5/ Verification Certificate of measuring technique#06/03-/004 from 13/07/08, mechanical Stopwatch.
/6/ Verification Certificate of measuring technique #151 from 10/07/12, electronic scales.
/7/ Verification Certificate of measuring technique #150 from 10/07/12, electronic scales.
/8/ Verification Certificate of measuring technique #153 from 10/07/12, electronic scales.
/9/ Verification Certificate of measuring technique #1576 from 15/08/12, electronic scales.
/10/ Verification Certificate of measuring technique #1574 from 15/08/12, electronic scales.
/11/ Verification Certificate of measuring technique #1575 from 15/08/12, electronic scales.
/12/ Certificate #51 of laboratory furnace of resistance, valid till 19/09/14
/13/ Certificate #52 of laboratory furnace of resistance, valid till 16/09/14
/14/ Certificate #49 of low temperature laboratory furnace, valid till 16/09/14
/15/ Certificate #48 of low temperature laboratory furnace, valid till 16/09/14
/16/ Certificate #46 of low temperature laboratory furnace, valid till 16/09/14
/17/ Certificate #47 of low temperature laboratory furnace, valid till 16/09/14
/18/ Certificate #654 of laboratory sieve, valid till 10.07.13
/19/ Certificate #652 of laboratory sieve, valid till 10.07.13
/20/ Certificate #653 of laboratory sieve, valid till 10.07.13

/21/ Certificates on coal quality 2008-2012 years
/22/ Technological scheme of enrichment plant
/23/ Sale invoices on delivered coal 2008-2012 year
/24/ Sale invoices on diesel fuel for 2008-2012 year
/25/ Passports on dismantled waste heaps
/26/ Statements on coal weighting for 2008-2012

Persons interviewed:

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

/1/ Gints Klavinsh - SIA "Vidzeme Eko" JI Project Manager

/2/ Stah Yuri Mykhailovych - SIA "Vidzeme Eko" JI Consultant

/3/ Ivan Petrovych Gushcha - manager of industrial site, "Donvuglezbagachennya" Ltd

/4/ Kateryna Ivanivna Novytska - Manager of TCD, "Stulnevskyy Granite Quarry" Ltd

/5/ Vadym Olehovych Mikulonok – director of PJSC "Krasnoperekopsk glass factory"

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APPENDIX A: DETERMINATION PROTOCOL

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	The title of project is "DISMANTLING OF WASTE HEAP #5 AT "KURAHIVSKA" MINE"	OK	OK
-	Is the sectoral scope to which the project pertains presented?	The sectoral scope is 8. Mining/mineral production	OK	OK
-	Is the current version number of the document presented?	The current version number is 1.0	OK	OK
-	Is the date when the document was completed presented?	The date when the document is completed is 05/10/2012	OK	OK
Description of the project				
-	Is the purpose of the project included with a concise, 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)?	*The situation existing prior to the starting date of the project* Very often it was not economically feasible to extract all 100% of coal from the rock mass. Therefore, waste heaps of Donbass region contains a large amount of coal, which is self-ignited later on. All the waste heaps that were self-ignited or the ones that are close to self-ignition are the centre of uncontrolled pollutants and greenhouse gas emissions *The baseline scenario assumed* that the common practice will be continued – heap can be spontaneously ignited with a certain probability, and the process of	CAR01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		burning will continue till all coal, contained there, will be burned. The process of combustion is accompanied by release the carbon dioxide into atmosphere. *Project scenario-*provides complete dismantling of the dump. During dismantling of the dump, the rocks will be divided into fractions, which will be used for blending with steam coal and subsequently supplied to heat power plants and boiler houses for burning as fuel. After sorting, the large fractions will be used for building and repairing of roads. As the result, rock mass of the dump will be fully utilized, and the received coal will replace coal, which otherwise would have had to be mined. As the result of the project, the opportunity of self-ignition of heap will be eliminated *CAR01* Please add data on subcontractors of "Krasnoperekopsky glass factory" Ltd involved to the project activity.		
-	Is the history of the project (incl. its JI component) briefly summarized?	The history of project JI component is briefly summarized *CAR02* Please add history of waste heaps dismantled in project frames. According to "*Моделювання температурного поля згасаючих териконів, В.В. Попович, А.Д. Кузик, канд. фіз.-мат. наук, доцент, О.О. Карабин, канд. фіз.-мат. наук, доцент, О.Ю. Чмир, канд. фіз.-мат. наук (Львівський державний університет безпеки життєдіяльності)*" time of waste heap burning is about 15-20 years after finishing	CAR02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		of waste heap mantling		
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	"Krasnoperekopsky glass factory" Ltd and SIA "Vidzeme Eko" is indicated as the project participants and Ukraine and Republic Latvia are indicated as Parties involved	OK	OK
-	Is the data of the project participants presented in tabular format?	The data of the project participants are presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	The contact information on project participants are indicated in the Annex 1	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	The Host Party Ukraine is indicated as the Party Involved	OK	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Donets Region, Selidovskyi District *CAR03* Please correct location district of proposed project	CAR03	OK
-	City/Town/Community etc.	Kurakhivka villge	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Geographical coordinates of the waste heaps and enrichment plant are provided in the section A.4.1.4 *CAR04* Please clarify source of project geographical data	CAR04	OK
Technologies to be employed, or measures, operations or actions to be implemented by the project				
-	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	Technology used in this project may be described in the section A.4.2 of the PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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				
-	Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	The proposed project is aimed at reducing anthropogenic emissions. Emission reductions created by: - Elimination of greenhouse gases sources associated with burning waste heaps, by extracting coal from the rock dumps; - Reduction of uncontrolled methane emissions due to replacement of coal that would have been extracted through mining; - Reduction of electricity consumption at waste heap dismantling in comparison to electricity consumption at coal mine.	OK	OK
-	Is it provided the estimation of emission reductions over the crediting period?	The estimation of emission reduction over crediting period 05/05/2008-31/12/2012 is 3 085 436 tonnes of CO2 equivalent and 1 952 811 tonnes of CO2 for 01/01/2013-31/12/2015	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	The estimated annual reduction for chosen crediting period is 661 165 tonnes of CO2 equivalent for 05/05/2008-31/12/2012 and 650 971 tonnes of CO2 equivalent for 01/01/2013-31/12/2015.	OK	OK
-	Are the data from questions above presented in tabular format?	The data from questions above is presented in tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	The length of crediting period is 4 years and 8 months from 05/05/2008 till 31/12/2012	OK	OK
-	Are estimates of total as well as annual	The estimates of total as well as annual and average	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	and average annual emission reductions in tonnes of CO2 equivalent provided?	annual emission reductions are provided in tonnes of CO2 equivalent		
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	The project obtained Letter of Endorsement #2904/23/7 dated 04/10/2012 from State Environment Investment Agency of Ukraine *CAR05* Please provide written project approvals from the both Parties Involved	CAR05	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	The Host party Ukraine is indicated as the Party Involved	OK	OK
19	Has the DFP of the host Party issued a written project approval?	See CAR05	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	See CAR05	Pending	Pending
Authorization of project participants by Parties involved				
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?	See CAR05	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which of	The PDD explicitly indicates that JI specific approach	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	was used for baseline establishing		
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	The PDD contains a detailed theoretical description of proposed baseline	OK	OK
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 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	The PDD provides justification of baseline establishing (a) By listing and describing five plausible future scenarious (b) Taking into account national and sectoral policies. Ukrainian policies doesn't require or encourage waste heaps dismantling (c) In transparent manner, with regard to the approaches, methodologies, parameters, data sources and key factors (d) Uncertaintites and conservative assumptions are taken into account (e) ERUs cannot be earned for decreasing in activity levels outside the project, because in case of projects stop, generation of emission reduction will be stopped also. (f) Variables used for baseline calculations in line within appendix B to "Guidance on criteria for baseline setting and monitoring" *CAR06* Please provide more detailed description of barriers for scenario 3. Wastes of coal production uses for	CAR06 CAR07	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	concrete production. *CAR07* Please provide analysis of the two next scenarios: (a) process of empty rock mass dumping to empty mines' caves (b) forestation of waste heap with usage of green mass as source of CO2 enhancement		
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?	*CAR08* Please correctly indicate name and the latest version of CDM methodology ACM0009 ver. 4.0.0, which elements are used for leakages estimation	CAR08	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	The multi-project emission factors used in line with National GHG Inventory Report for 1990-2010 years, approved by SEIA	OK	OK
Approved CDM methodology approach only_Paragraphs 26(a) – 26(d)_Not applicable				
Additionality				
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	The PDD indicates that approach (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; was used for demonstration of addtionality	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 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?	The justification of proposed approach applicability is provided	OK	OK
29 (b)	Are additionality proofs provided?	a) *GHG mitigation measure*. The project boundary is virtually identical, the expected annual average GHG emission reduction is differ less than 50%. Criteria is satisfied b) *Geography and time*. Both projects is implemented in Ukraine, starting date are divided less than 1 year. Criteria is satisfied c) *Scale.* The projects envisage production of the same product (coal). d) *Regulatory framework.* There were no significant changes in regulatory framework between the starting dates of two projects. Criteria is satisfied.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
29 (c)	Is the additionality demonstrated appropriately as a result?	The additionality is demonstrated in appropriate way	OK	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	The Approach 28(b) was chosen	OK	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				
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 boundaries defined in the PDD encompass all anthropogenic emissions by GHG sources that are (i) Under control of the project participants, such as emissions of electricity and diesel fuel consumption during waste heap dismantling (ii) Reasonably attributable to the project, such as emissions from waste heap burning or methane emissions as result of coal industry (iii) Significant *CAR09* Please correct baseline scenario in the section B.3 (under the table 14)	CAR09	OK
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?	The project boundary is defined on the basis of a case-by-case assessment with regard to the criteria in 32(a) above	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included	The delineation of project boundaries and gases and sources excluded is clearly described in the PDD,	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	using flow charts.		
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 inclusions are explicitly stated in the project and baseline scenarios	OK	OK
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 project starting date is stated in 05/05/2008 the day when the project equipment installation begun.	OK	OK
34 (a)	Is the starting date after the beginning of 2000?	The starting date is after beginning of 2000	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	The project equipment expected operational lifetime is indicated in 7 years 8 months (92 months) *CAR10* Please correctly indicate project operation lifetime	CAR10	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is 4 years 8 months (56 months)	OK	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 the project?	The starting date of crediting period is 05/05/2008, the date when the waste heap dismantling begun and first emission reductions were generated	OK	OK
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	Yes, the crediting period starts after the 2008 year beginning and doesn't extend the project operational lifetime.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the project?			
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?	The crediting period extends beyond 2012 in case of Host Party Approval	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	The JI specific approach was used for monitoring plan identification	OK	OK
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, such as: - electricity and fuel consumed in project activity; - value of extracted coal concentrate, its ash content and moisture. The period in which they will be monitored are indicated, frequency of measuring procedures is identified All decisive factors for the control and reporting of project performance are described	OK	OK
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission	The monitoring plan specify the indicators, constants and variables used, that are reliable, valid and provide transparent picture of the emission reductions to be monitored	CAR11	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reductions or enhancements of net removals to be monitored?	*CAR11* Please provide to AIE documents, that describe project key parameters, such as - sale invoices on delivered coal concentrate - invoices on consumed diesel fuel - monthly acts on electric energy consumptions		
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?	The default values, such as: - global warming potential of methane - methane density in standard conditions - carbon emission factors for electricity consumption - carbon oxidation factors for coal and diesel fuel - carbon content of diesel fuel and coal, etc these default values is in line within National GHG inventory Report developed and approved by Ukraine DFP(SEIA)	OK	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	For monitored data provided by the project participants monitoring plan identify selection and justification	OK	OK
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?	References on values obtained from sources another from indicated above is provided. Conservativeness of this value is justified	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	The procedures following if expected data is unavailable are described in the section D.1 of the PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (b) (iv)	Are International System Unit (SI units) used?	Some units from International System Unit are used	OK	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?	The monitoring plan clearly indicate next parameters that obtained through monitoring but used for baseline calculations: - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heap because of the project activity - net Calorific Value of coal - carbon Oxidation factor of coal - carbon content of coal - the average ash content of sorted fractions the average humidity of sorted fractions	OK	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	The use of parameters, coefficients, variables is consistent between the baseline and the monitoring plan	OK	OK
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 was drawn in accordance with the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"	OK	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 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	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 are monitored throughout the crediting period?	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 are monitored throughout the crediting period.		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The monitoring plan clearly describes the methods employed for data monitored, such as direct measuring with metering devices and laboratory samples, account from bookkeeper invoices; frequency of monitoring procedures and recording. *CAR12* Please add in the section D.1 sub-section Measuring devices reference on Annex 3 contained data on project measuring equipment	CAR12	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	The monitoring plan elaborates all formulae required to baseline and project emissions adjusted by leakages calculation	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formulae is explained	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	All variables, equation formats, subscripts are used in consistent way	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (iii)	Are all equations numbered?	All equations are numbered	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	All variables with units are indentified	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	*CAR13* Please add information how values of coal concentrate will be crosschecked	CAR13	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level of Key parameters is indicated as low in the section D.2 of the PDD. Only uncertainty level of probability of waste heap self-ignition is indicated as medium	OK	OK
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?	The consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline is ensured	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	The monitoring plan contains detailed explanation of each part of formulae	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	The proposed monitoring plan is similar with monitoring plans of JI projects implemented at SIA "Antracit", SIA "Monolit", "Temp" LLC etc, determined by Global Carbon B.V.	OK	OK
36 (f) (vii)	Are references provided as necessary?	The references are provided in relevant points	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	The explicit and implicit key assumptions are explained in transparent manner	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	The project participants describe uncertainty level of key factors as low. Key project parameters monitoring equipment is calibrated/verified in accordance with state rules and approved methodologies of quality control and quality assurance	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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 level of parameters monitored is indicated in the section D.2, quality control and quality assurance procedures. The uncertainty level of parameters monitored is indicated as low, only Probability of waste heap burning is indicated as medium	OK	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?	The monitoring plan identifies next state ruling documents: (a) GOST 11022-95 and GOST 11014-2001 for sampling analysis process (b) GOST 305-82 on diesel fuel parameters References on detailed description of mentioned standard are provided	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	The monitoring plan uses some statistical data sources such as researches of waste heap self-ignition probability from Scientific Centre "Respirator", data from Ukrainian State Statistic Service	OK	OK
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?	The quality control and quality assurance procedures of monitoring process are presented. Information on project measuring devices calibration is provided	OK	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The monitoring plan clearly identifies the responsibilities and the authorities regarding the monitoring activities, see please figure 9, section D.3 of the PDD	OK	OK
36 (k)	Does the monitoring plan, on the whole,	The monitoring plan is identical to monitoring plans in	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	JI projects implemented at SIA "Antracit", SIA "Monolit", "Temp" LLC etc, determined by Global Carbon B.V.		
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?	The monitoring plan provides in tabular form a complete compilation of the data collected and required for emission reduction calculation, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations	OK	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 transfer of ERUs for the project?	The monitoring plan indicates that data monitored and required for ERUs calculation will be kept two years after the last ERUs transfer *CAR14* Please add reference on relevant order describing data collecting and keeping procedures	CAR14	OK
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?	Selected elements of CDM methodology ACM0009,Version 4.0.0 was used for leakages estimations in line within the section 36 above	OK	OK
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				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Leakage				
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?	The PDD appropriately describe an assessment of project leakages and explain which sources of leakage are to be calculated or to be neglected	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	The procedure of ex ante leakages estimates are provided in the PDD	OK	OK
Approved CDM methodology approach only_Paragraph 41_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	The PDD indicates that assessment of emissions in the baseline scenario and in the project scenario was chosen	OK	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	The PDD provides ex ante estimates for period (a) Emissions for the project scenario within the project boundary which is 83 380 tonnes of CO2 equivalent for 05/05/2008-31/12/2012 and 53 244 tonnes of CO2 equivalent for 01/01/2013-31/12/2015 (b) Leakages which is - 681 206 tonnes of CO2 equivalent for 05/05/2008-31/12/2012 and -428 241 tonnes of CO2 equivalent for 01/01/2013-31/12/2015 (c) Emissions for the baseline scenario which is	CAR15	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		2 487 610 tonnes of CO2 equivalent for 05/05/2008-31/12/2012 and 1 577 814 tonnes of CO2 equivalent for 01/01/2013-31/12/2015 (d) Emission reductions adjusted by leakages which is 3 085 436 tonnes of CO2 equivalent for 05/05/2008-31/12/2012 and 1 952 811 tonnes of CO2 equivalent for 01/01/2013-31/12/2015 *CAR15* Please correctly indicates value of leakages in 2013-2015 years		
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?	The approach 42(a) was chosen	OK	OK
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-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by	a) The estimates are given on (i) on a yearly basis (ii) from 05/05/2008 till 31/12/2015 (iii) On a source-by-source/sink-by-sink basis - for each GHG, which are CH4 and CO2 - in tonnes of CO2 equivalent - using global warming potentials defined by decision 2/CP.3 (b) The formula used for calculating in 43 is consistent throughout the PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 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	(c) The key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account for calculating estimates in 43 (d) The data sources used for calculating the estimates in 43 are clearly identified, reliable and transparent. (e) emission factors used for calculations in 43 are in line with National GHG Inventory Report approved by Ukrainian DFP (f) The estimations in 43 are based on conservative assumptions and the most plausible scenarios in a transparent manner (g) the estimates in 43 are consistent throughout the PDD (h) the annual average value of estimated emission reductions is calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	net removals calculated by dividing the total estimated emission reductions or 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?	PDD contains ex-post calculations for 2008-2011 years. Ex-ante calculations is provided for 2012 year	OK	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?	The PDD lists documentation on the project environmental impact analysis in accordance with actual Ukrainian legislation.	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are 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?	The analysis mentioned in 48(a) indicates that impact on air is significant. Assessment of impact on the environment under the laws of Ukraine was held for the proposed project in 2008.	OK	OK
Stakeholder consultation				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	Actual Ukraine legislation doesn't require public information for JI project. Any comments from local stakeholders are obtained. Comments will be collect during determination process	OK	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				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR01 Please add data on subcontractors of "Krasnoperekopsky glass factory" Ltd involved to the project activity.	-	"Stulnevskyy Granite Quarry" Ltd.is the contractor of waste heap sorting and dismantling. Contract for work #83 from 10/03/08 between "Stulnevskyy Granite Quarry" Ltd and "Krasnoperekopsky glass factory" Ltd. .	The issue is closed

CAR02 Please add history of waste heaps dismantled in project frames. According to "*Моделювання температурного поля згасаючих териконів, В.В. Попович, А.Д. Кузик, канд. фіз.-мат. наук, доцент, О.О. Карабин, канд. фіз.-мат. наук, доцент, О.Ю. Чмир, канд. фіз.-мат. наук (Львівський державний університет безпеки життєдіяльності)*" time of waste heap burning is about 15-20 years after finishing of waste heap mantling	-	The beginning of waste heap dumping - 1947 year, the end - 1979. Concerning duration of burning waste heaps, it is still controversial subject. In the literature there are numbers from 5 to 50 years. In terms of the project, an important matter is the time of waste heap ignition. However, in this project waste heaps that are being dismantled were not burning.	The issue is closed
CAR03 Please correct location district of proposed project	-	The location of the proposed project is provided in PDD.	The issue is closed
CAR04 Please clarify source of project geographical data	-	Source of geographic coordinates - program Google – Earth, version 6.0.	The issue is closed
CAR05 Please provide written project approvals from the both Parties Involved	19	Project approvals will be provided to the AIE after the submission of the Determination report to the DFPs of Parties Involved	Pending
CAR06 Please provide more detailed description of barriers for scenario 3. Wastes of coal production uses for concrete production.	23	An additional obstacle to the use of this waste heap as building materials is that it has high carbon content, therefore it leads to lower quality of products. In addition, the technology of building materials requires fine grinding, therefore results in additional energy costs.	The issue is closed

CAR07 Please provide analysis of the two next scenarios: (c) process of empty rock mass dumping to empty mines' caves forestation of waste heap with usage of green mass as source of CO2 enhancement	23	Concerning these two proposed scenarios can say the following: -inverse filling rock in the mine is progressive, but highly expensive method, compared to dumping rocks into piles. -afforestation is possible only under complete burnup of coal in waste heaps. The probability of waste heaps ignition in Donetsk region is very high (0.83% according to the research of the Respirator Institute).As the result, we can not consider the afforestation on burning heaps, which are considered in the project, as an alternative.	The issue is closed
CAR08 Please correctly indicate name and the latest version of CDM methodology ACM0009 ver. 4.0.0, which elements are used for leakages estimation	24	Reference number is correctly indicated: methodology ACM0009 version 4.0.0	The issue is closed
CAR09 Please correct baseline scenario in the section B.3 (under the table 14)	32(a)	Baseline scenario was corrected	The issue is closed
CAR10 Please correctly indicate project operation lifetime	34(b)	Section C.2 "Expected operational lifetime of the project": The life cycle of the project will last from 05/05/2008 to 31/12/2015. Thus, the project life cycle is 7 years 8 months (or 92 months).	The issue is closed

CAR11 Please provide to AIE documents, that describe project key parameters, such as - sale invoices on consumed coal containing rock mass - sale invoices on delivered coal concentrate - invoices on consumed diesel fuel monthly acts on electric energy consumptions	36 (b)	Appropriate documents will be provided to AIE	The issue is closed
CAR12 Please add in the section D.1 sub-section Measuring devices reference on Annex 3 contained data on project measuring equipment	36 (e)	Reference on Annex 3 «Monitoring plan» contains data on project measuring equipment.	The issue is closed
CAR13 Please add information how values of coal concentrate will be crosschecked	36(f)(v)	Information how values of coal concentrate will be crosschecked is described in Section D.1.: To determine this parameter the commercial data of company are used. To confirm the amount of coal checks and documents from customers are used. Taken into account and refers to the project activity only product which delivered to the customer. Weighing takes place on site using certified scales. Regular cross-inspections with customers are executed. Information of summarized reports is based on these delivery data.	The issue is closed

CAR14 Please add reference on relevant order describing data collecting and keeping procedures	36 (m)	Noted in Section D.1.:Documents and reports on the data that are monitored will be archived and stored by the project participants. The following documents will be stored: primary documents for the accounting of monitored parameters in paper form; intermediate reports, orders and other monitoring documents in paper and electronic form; documents on measurement devices in paper and electronic form. These documents and other data monitored and required for determination and verification, as well as any other data that are relevant to the operation of the project will be kept for at least two years after the last transfer of ERUs.	The issue is closed
CAR15 Please correctly indicates value of leakages in 2013-2015 years	43	Error in the Table 19 is corrected.	The issue is closed