DETERMINATION REPORT

CARBON MARKETING AND TRADING LTD

DETERMINATION OF THE

«Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere »

REPORT NO. UKRAINE-DET/0783/2012

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Client:	**Client ref.:**
CARBON MARKETING AND TRADING LTD	Mr. Tahir Musayev

Summary:

Bureau Veritas Certification has made the determination of the «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» project of Limited Liability Company «ALBION-95» located near village Fedorivka, on the land of the Mykytivka village council, Antracite district, Luhansk 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.:	Subject Group:
UKRAINE-det/0783/2012	JI

Project title:
«Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere»

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1 INTRODUCTION

CARBON MARKETING AND TRADING LTD has commissioned Bureau Veritas Certification to determine its JI project «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» (hereafter called "the project") located near village Fedorivka, on the land of the Mykytivka village council, Antracite district, Luhansk 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:

Vyacheslav Yeriomin

Bureau Veritas Certification Team Leader, Climate Change Verifier

Sergii Verteletskyi

Bureau Veritas Certification Climate Change Verifier

Dmytro Balyn

Bureau Veritas Certification, Technical Specialist

This determination report was reviewed by:

Ivan Sokolv
Bureau Veritas Certification, Internal Reviewer

Vladimir Lukin
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 CARBON MARKETING AND TRADING LTD 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, and 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, CARBON MARKETING AND TRADING LTD revised the PDD and resubmitted it on 05/11/2012.

The determination findings presented in this report relate to the project as described in the PDD version(s) 02.

2.2 Follow-up Interviews

On 02/11/2012 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 CARBON MARKETING AND TRADING LTD and Limited Liability Company «ALBION-95» were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Limited Liability Company «ALBION-95»	• Project history • Project approach • Project boundary • Implementation schedule • Organizational structure • Responsibilities and authorities • Training of personnel • Quality management procedures and technology • Rehabilitation/Implementation of equipment (records) • Metering equipment control • Metering record keeping system, database • Technical documentation • Monitoring plan and procedures • Permits and licenses
Consultant: CARBON MARKETING AND TRADING LTD	• Baseline methodology • Monitoring plan • Additionality proofs • Calculation of emission reduction

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

This Project is aimed at coal extraction from the mine's waste heaps of the Luhansk Region of Ukraine. These waste heaps have been accumulated some time before the start of the project activity from the mining waste of underground mines. Project activity 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.

The Project activities include installation of the equipment for coal extraction and beneficiation near the processing waste heaps and applying special machinery that will perform preparation, loading and transportation of the rock from the waste heaps to the beneficiation factory. After purifying of the matter, the extracted coal will be sold for heat and power generation and the remaining bare rock will be utilized for land engineering and road building.

The identified areas of concern as to project description, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR01 – CAR03).

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 10 Corrective Action Requests and 02 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 been officially presented for endorsement to the Ukrainian authorities. State Environmental Investments Agency of Ukraine has issued a Letter of Endorsement for the project #3114/23/7 dated 19/10/2012.
According to the national Ukrainian procedure, the LoAs by Ukraine is expected after the project determination.

The identified areas of concern as to project approvals by parties involved, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR04 –CAR05).

4.2 Authorization of project participants by Parties involved (21)

The official authorization of each legal entity listed as project participant in the PDD by Parties involved will be provided in the written project approvals (refer to 4.1 above) after project determination.

No outstanding issues were raised.

4.3 Baseline setting (22-26)

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

JI specific approach

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

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

Scenario 1. Continuation of existing situation

In the current situation waste heaps are not utilized. Coal contained in the waste heaps is not a subject of extraction and; as a result, spontaneous self-heating and subsequent burning of waste heaps leading to uncontrolled GHG emissions is very common. Coal is produced by underground mines that cause fugitive emissions of methane as well as the formation of new waste heaps.

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

Some burning heaps are used to produce energy by direct insertion of heat exchangers into the waste heap. This captures a certain amount of heat energy for direct use or conversion into electricity. Coal for industrial use is not extracted from the waste heaps under this scenario. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities result in fugitive gas release, and the formation of more waste-heaps.

Scenario 3. Production of construction materials from waste heap matter

Waste heaps are being processed in order to produce construction materials (bricks, panels, etc.). Coal in the waste heap matter is burnt during the agglomeration process. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities result in fugitive gas release, and the formation of more waste-heaps.

Scenario 4. Systematic monitoring of waste heaps condition, regular fire prevention and application of extinguishing measures

Waste heaps are systematically monitored and their thermal condition is observed. Regular fire prevention measures are taken. Coal is not extracted from the waste heaps, but is produced by underground mines

and used for energy production or other purposes. Mining activities, result in fugitive gas release, and the formation of more waste-heaps.

Scenario 5. Coal extraction from waste heaps without JI incentives

Although this scenario is similar to the project activity only the project itself does not benefit from the possible development as a joint implementation project. In this scenario waste heaps are processed in order to extract coal and use it in the energy sector. Less coal is produced by underground mines of the region.

Also this baseline scenario has been established according to the criteria outlined in the JISC Guidance:

1) On a project specific basis;

2) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors. All parameters and data are either monitored by the project participants or are taken from sources that provide a verifiable reference for each parameter. Project participants use approaches suggested by the JISC Guidance and methodological tools provided by the CDM Executive Board;

3) 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. It is demonstrated by the above analysis that the baseline chosen clearly represents the most probable future scenario given the circumstances of modern day Luhansk coal sector;

4) 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 from the waste heaps, so no emission reductions can be earned due to any changes outside of project activity.

5) Taking account of uncertainties and using conservative assumptions. A number of steps have been taken in order to account for uncertainties and safeguard conservativeness:

a. Same approaches as used for the calculation of emission levels in the National Inventory Reports (NIRs) of Ukraine are used to calculate baseline and project emissions when possible. NIRs use

the country specific approaches and country specific emission factors that are in line with default IPCC values;

b. Lower range of parameters is used for calculation of baseline emissions and higher range of parameters is used for calculation of project activity emissions;

c. Default values were used to the extent possible in order to reduce uncertainty and provide conservative data for emission calculations.

No outstanding issues were raised.

4.4 Additionality (27-31)

According to Paragraph 44 of Annex 1 to the Guidance on criteria for baseline setting and monitoring Version 03, approach B has been selected for demonstration of this project's additionality.

Traceable and transparent information that an AIE has already positively determined that a comparable project implemented under comparable circumstances (same GHG mitigation measure, same country, similar technology, similar scale) 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 and a justification why this determination is relevant for the project at hand was provided.

Project "Dismantling of Waste Heap #2 at Mine #22 "LISOVA" (ITL project ID: UA1000329) and the proposed project are implemented within the same geographic region of Ukraine – the Donbas coal mining region. The implementation timeline is quite similar. Projects will share the same investment profile and market environment. These projects are implemented by private companies with no utilization of public funds. The investment climate will be comparable in both cases with the coal sector being an almost non-profitable sector in Ukraine burdened by many problems. The market for the extracted coal will also be similar for projects as these are small private companies that will not be able to sell coal in big quantities under long-term contracts.

Thus, additionality is demonstrated appropriately as a result of the analysis using the approach chosen.

The identified areas of concern as to additionality, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR06).

4.5 Project boundary (32-33)

The project boundary defined in the PDD, which is which in accordance with the specific approach is delineated by the physical site of the entire technological complex, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

(i) Under the control of the project participants :
a) Carbon dioxide emissions from the use of fuel to run part of the project equipment (motor cars),

b) Carbon dioxide emissions associated with the electricity consumption by the project equipment

(ii) Reasonably attributable to the project ;and

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

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

For detailed information see table below:

	Source	**Gas**	**Included/Excluded**	**Justification / Explanation**
Baseline	Waste heap burning	CO_2	Included	Main emission source
	Coal consumption	CO_2	Excluded	This coal is displaced in the project activity by the coal extracted from the waste heaps. This emission source is equal to the one present in the project scenario and, therefore is excluded from consideration.
scenario	Coal consumption	CO_2	Excluded	This coal is extracted from the waste heaps. This emission source is equal to the one present in the baseline scenario and, therefore is excluded from consideration.
	Electricity use for the process of coal extraction from the waste heap	CO_2	Included	Indirect emissions. Main emission source

Project	Fossil fuel (diesel) consumption for the process of coal extraction from the waste heap	CO_2	Included	Main emission source
Leakages	Fugitive methane due to coal mining in the mines	CH_4	Included	These leaks are taking place in the baseline scenario associated with the uncontrolled leakage of methane in the mine
	Consumption of electricity due to mining	CO_2	Included	Leakages due to baseline activity
	Use of other types of energy resources due to mining	CO_2	Excluded	These leakages are not significant, and also for reasons of conservatism, they are excluded from consideration.

No outstanding issues were raised.

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the real action of the project began, and the starting date is 08/12/2008, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 5 years or 60 months.

The PDD states the length of the first crediting period in years and months, which is 2 years and 24 months, and its starting date as 01/01/2011, which is on the date the first emission reductions 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.

The identified areas of concern as to crediting period, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR07, CL02).

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:

1. Additional electricity consumed in the relevant period as a result of the implementation of the project activity. This parameter is registered by a specialized electricity meters. The meters are situated next to the current transformers on the site of the project activity. These meters register all electric energy consumed by the project activity as they are located on the only electrical input available on site. Readings are used in the commercial dealings with the energy supply company. Monthly bills for electricity are available. Regular cross-checks with the energy supply company are performed. Monthly and annual reports are based on the monthly bills.

2. Amount of diesel fuel that has been used for the project activity in the relevant period.

For the metering of this parameter the commercial data of the company are used. Receipts and other accounting data are used in order to confirm the amount of fuel consumed. All fuel consumption is taken into account and is attributed to the project activity. If the data in the commercial documents mentioned are provided in litres rather than in tonnes the data in litres are converted into tonnes using the density of 0,85 kg/l. Regular cross-checks with the suppliers are carried out. The monthly and annual reports are based on these data.

3. Amount of coal that has been extracted from the waste heaps and combusted for energy use in the project activity in the relevant period which is equal to the amount of coal that has been mined in the baseline scenario and combusted for energy use.

3.1. Amount of fraction.

For the metering of this parameter the commercial data of the company are used. Receipts and acceptance certificates from the customers are used in order to confirm the amount of coal restored. Only shipped coal is taken into account and is attributed to the project activity. Weighting of the coal is done on site by the special automobile scales. Regular cross-checks with the customers are performed. The monthly and annual reports are based on these shipment data.

3.2. Ash content and moisture of fraction.

Ash content and moisture fraction is defined accredited for technical competence and independence of the laboratory in

accordance with regulations (GOST 11022-95 "Mineral solid fuel. Methods of determination the ash content" , GOST 11014-2001 "Brow ncoal, hard coal and oil shale. Accelerated methods for determining the moisture" and GOST 27314-91 «Mineral solid fuel. Methods of determination the moisture content». Analysis of ash content and moisture fraction is done in the laboratory. Ash content and moisture of coal fraction measured regularly with registration annually certificates.

Thus, there is the collection and archiving of all data required for evaluation or measurement anthropogenic emissions of greenhouse gases within the project crediting period and baseline emissions.

The monitoring plan has properly given a list of standard variables that are contained in Annex B to the "Guidance on criteria for baseline setting and monitoring" developed by the JISC, including: baseline emissions (BE_y, $BE_{XX,y}$), project emissions (PE_y, $PE_{XX,y}$), electricity consumption (EC_y), CO_2 emission factor ($EF_{CO2,XX}$, $EF_{CH4,XX}$, $EF_{CO2,ELEC,y}$), leakages in period - LE_y, $LE_{XX,y}$, global warming potential - GWP_{XX}, density - ρ_x, net calorific value - NCV_{XX}, fuel quantity combusted - FC_{XX}, oxidation factor for fuel combustion $OXID_{XX,}$ carbon content of fuel k^C_{xx} .

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:

Data / Parameter	***Data unit***	***Description***	***Data Source***	***Value 2008***	***Value 2009***
GWP_{CH4}	tCO_2e/tCH_4	Global Warming Potential of Methane	IPCC Second Assessment Report	21	
ρ_{CH4}	t/m^3	Methane density	Standard (temperature 20℃ and 1 ATM)	0.00067	
NCV_{coal}	GJ/t	Net Calorific Value of coal	National Inventory Report of Ukraine 1990-2010	21.50	21.80
NCV_{diesel}	GJ/t	Net Calorific Value of diesel fuel	National Inventory Report of Ukraine 1990-2010	42.20	42.40
$OXID_{COAL}$	ratio	Carbon Oxidation factor of coal	National Inventory Report of Ukraine 1990-2010	0.963	0.963
$OXID_{DIESEL}$	ratio	Carbon Oxidation factor of diesel fuel	National Inventory Report of Ukraine 1990-2008	0.99	0.99

k^{C}_{coal}	tC/TJ	Carbon content of coal	National Inventory Report of Ukraine 1990-2010	25.95	25.97
k^{C}_{diesel}	tC/TJ	Carbon content of diesel fuel	National Inventory Report of Ukraine 1990-2010	20.20	20.20
$EF_{grid, y}$	$kgCO_2/kWh$	Relevant emission factor for the electricity from the grid in the period *y*	For the years 2008-2011 – NEIA Orders No.43 dated 28.03.2011, No.62 dated 15.04.2011, No.63 dated 15.04.2011,No.75 dated 12.05.2011	For 1st class 2008-1.082 2009-1.096 2010-1.093 2011-1.090 For 2nd class 2008-1.219 2009-1.237 2010-1.225 2011-1.227	
$N^{E}_{Coal,y}$	MWh/t	Average electricity consumption per ton of coal, produced in Ukraine in the year *y*	Fuel and energy resources of Ukraine, Statistical Yearbook, State Statistics Committee of Ukraine, Kiev 2009-2011	0.0878	0.0905
A_{Coal}	%	The average ash content of coal produced in Ukraine	Guide of quality, volume of coal production and enrichment products in 2008¬2010, Ministry of Coal Industry of Ukraine, State Committee of Ukraine	2008 - 38.60 2009 - 39.20 2010 - 39.70 2011 - 39.80	
W_{Coal}	%	The average moisture of coal produced in Ukraine	Guide of quality, volume of coal production and enrichment products in 2008¬2010, Ministry of Coal Industry of Ukraine, State Committee of Ukraine	2008 - 8.60 2009 - 8.20 2010 - 8.30 2011 - 8.30	
$EF_{CH4, CM}$	m^3/t	Average rate for fugitive methane emissions from coal mining	National Inventory Report of Ukraine 1990-2010	25.67	

(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:

Data / Parameter	Data unit	Description	Data Source	Value 2010	Value 2011	Value 2012
NCVcoal	GJ/t	Net Calorific Value of coal	National Inventory Report of Ukraine	21.60	21.60	21.60

NCVdiesel	GJ/t	Net Calorific Value of diesel fuel	National Inventory Report of Ukraine	42.40	42.40	42.40
OXIDcoal	ratio	Carbon Oxidation factor of coal	National Inventory Report of Ukraine	0.962	0.962	0.962
OXIDdiesel	ratio	Carbon Oxidation factor of diesel fuel	National Inventory Report of Ukraine	0.99	0.99	0.99
kCcoal	tC/TJ	Carbon content of coal	National Inventory Report of Ukraine	25.99	25.99	25.99
kCdiesel	tC/TJ	Carbon content of diesel fuel	National Inventory Report of Ukraine	20.20	20.20	20.20
EF grid, y	kgCO2/kWh	Relevant emission factor for the electricity from the grid in the period y	For the years 2008-2011 – NEIA Orders No.43 dated 28.03.2011, No.62 dated 15.04.2011, No.63 dated 15.04.2011,No.75 dated 12.05.2011			For 1st class 1.090 For 2nd class 1.227
NECoal,y	MWh/t	Average electricity consumption per ton of coal, produced in Ukraine in the year y	Fuel and energy resources of Ukraine, Statistical Yearbook, State Statistics Committee of Ukraine, Kiev	0.0926	0.0842	0.0842
EFCH4, CM	m3/t	Average rate for fugitive methane emissions from coal mining	National Inventory Report of Ukraine	25.67		
pWHB	ratio	Correction factor for the uncertainty of the waste heaps burning process	Scientific research was verified and confirmed by accredited independent entities	For Luhansk Region - 0.78 For Donetsk Region - 0.83		

(iii) Data and parameters that are monitored throughout the crediting period, such as:

$EC_{PJ,y}$	Additional electricity consumed in year y as a result of the implementation of the project activity
$FC_{PJ,Diesel,y}$	Amount of diesel fuel that has been used for the project activity in period y
$FC_{BE,Coal,y}$	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 in the project activity in period y. Calculated by the equation 3 or 4.
$FR_{Coal,y}$	Amount of sorted fraction , which is extracted from the waste heaps because of the project activity in a period y

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.

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y} \quad \text{(Equation 1)}$$

where:
BE_y- baseline emissions in period *y* (tCO_2e);
$BE_{WHB,\ y}$ - baseline emissions due to burning of the waste heaps in period *y* (tCO_2);
$BE_{EL,\ y}$-baseline emissions due to consumption of electricity from a grid at coal mine in a period y,(tCO2);
$BE_{WHBC,\ y}$-baseline emissions due to burning of waste heap, created as a result of coal mining during the period y, (tCO_2);

Baseline Emissions due to burning of the waste heaps, in turn, are calculated as:

$$BE_{WHB,y}=FC_{BE,Coal,y}/1000 \bullet \rho_{WHB} \bullet NCV_{Coal} \bullet OXID_{Coal} \bullet k^{C}_{Coal} \bullet 44/12 \quad \text{(Equation 2)}$$

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 heaps in the project activity in period y, t;
ρ_{WHB} - correction factor for the uncertainty of the waste heap burning process. This factor is defined on the basis of the survey of all the waste heaps in the area that provides a ratio of waste heaps that are or have been burning at any point in time to all existing waste heaps;
NCV_{coal} – net calorific vlue of coal,GJ/t;
$OXID_{coal}$ – carbon oxidation factor of coal, ratio;
k^{C}_{coal} – carbon content of coal, tC/TJ;
44/12 – ration between molecular mass of CO_2 and C. Reflect oxidation of C to CO_2;

$$FC_{BE,Coal,y}= FR_{Coal,y} \bullet (1-A_{Rock,y}/100-W_{Rock,y}/100)/(1-A_{Coal,}/100-W_{Coal}/100) \quad \text{(Equation 3)}$$

Where:
$FR_{Coal,y}$ – amount of sorted fraction, which is extracted from the waste heaps because of the project in a period y, that came to blending with further combustion in thermal power plants, t;
$A_{Rock,y}$ – the average ash content of sorted fractions, which is extracted from waste heap in period y,%;

$W_{Rock,y}$ – the average moisture of sorted fractions , which is extracted from waste heap in period y, %;
A_{Coal} – the average ash content of coal, mined in Ukraine, %;
W_{Coal} – the average moisture of coal, mined in Ukraine, %;
100 – conversion factor from percent to fraction, ratio;

If the average ash content and the average moisture of sorted fraction, which are extracted from the waste heap in the period y, are not available for the developer, or are irregular with a high level of uncertainty(table D.2 of PDD) , they are taken equal to the relevant nation indicators, and

$$FC_{BE,Coal,y} = FR_{Coal,y} \quad \text{(Equation 4)}$$

Emissions from the project activity are calculated as follows:

$$PE_y = PE_{EL,y} + PE_{Diesel,y} \quad \text{(Equation 5)}$$

where
PE_y – project emissions due to project activity in the period *y* (tCO_2e);
$PE_{EL,y}$ – project emissions due to consumption of electricity from the grid by the project activity in the period *y* (tCO_2e);
$PE_{Diesel,y}$ – project emissions due to consumption of diesel fuel by the project activity in the period *y* (tCO_2e);

These, in turn, are calculated as:

$$PE_{EL,y} = EC_{PJ,y} \bullet PE_{grid,y} \quad \text{(Equation 6)}$$

where:
$EC_{PJ,y}$ – additional electricity consumed in period *y* as a result of the implementation of the project activity , MWh,
$EF_{grid,y}$ – relevant emission factor for the electricity from the grid in the period*y,* kgCO2/kWh(tCO2/MWh).

$$PE_{Diesel,y} = FC_{PJ,Diesel,y}/1000 \bullet NCV_{Diesel} \bullet OXID_{Diesel} \bullet k^{C}_{Diesel} \bullet 44/12 \quad \text{(Equation 7)}$$

where:
$FC_{PJ,Diesel,y}$ – amount of diesel fuel that has been used for the project activity in the periody, t;
NCV_{Diesel} – net calorific value of diesel fuel, GJ/t;
$OXID_{Diesel}$ – carbon oxidation factor of diesel fuel, ratio;
k^{C}_{Diesel} – carbon content of diesel fuel, t C/TJ;
44/12 – ration between molecular mass of CO_2 and C. Reflect oxidation of C to CO_2;

Leakages in the period y are calculated as follows:

$LE_y = LE_{CH4,\,y} + LE_{EL,y}$ (Equation 8)

Leakages due to fugitive emissions of methane in the mining activities in the period y (tCO_2e):

$LE_{CH4,y} = - FC_{BE,Coal,y} \cdot EF_{CH4,CM} \cdot \rho_{CH4} \cdot GWP_{CH4}$ (Equation 9)

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 in the project activity in period y, t;
$EF_{CH4,\,CM}$ – average rate for fugitive methane emissions from coal mining, m^3/t;
ρ_{CH4} - methane density, t/m^3;
GWP_{CH4} – Global Warming Potential of Methane, tCO_2e/tCH_4;

Leakages due to electricity consumption at coal mines in a period y, calculated by the equation:

$LE_{EL,y} = - FC_{BE,Coal,y} \cdot N^{E}_{Coal,y} \cdot EF_{grid,\,y}$ (Equation 10)

The emission reductions are calculated as follows:
$ER_y = BE_y - LE_y - PE_y$ (Equation 11)

where:

ER_y – emissions reductions of the JI project in period y (tCO_2e);

LE_y – leakages in period y (tCO_2e);

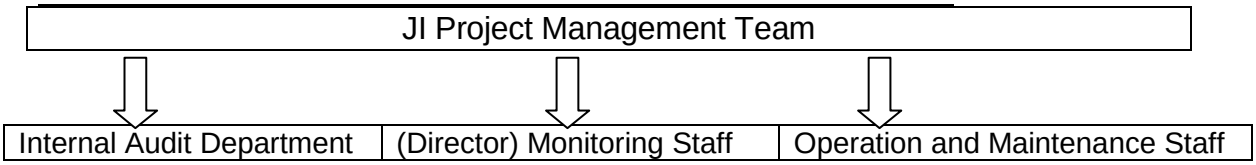
BE_y – baseline emission in period y (tCO_2e);

PE_y – project emission in period y tCO_2e);

The monitoring plan presents the quality assurance and control procedures for the monitoring process such as calibration of measuring equipment and internal procedures of the company .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.

The operational and management structure (as shown in below the figure) and the responsibilities of the principals are as follows. Ultimate responsibility for the project rests with the JI Project Manager.



The JI Project Manager is responsible for:

- Checking and signing off all project operational-relate dactivities
- Appointing and liaising with the accredited independent entity(AIE) Identifying an audit team leader to be appointed by the Chief Engineer or a delegated authority
- Appointing a JI technical team to undertake the operational activities
- Organizing training and refresher courses
- Preparing and supervising a Health and Safety Plan for the JI technical team
- Supervising the work of the JI technical team
- Crosschecking reported volumes and sales receipts

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.

The identified areas of concern as to monitoring plan, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR08-CAR10).

4.8 Leakage (40-41)

The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains which sources of leakage are to be calculated, and which can be neglected:

	Source	Gas	Included/Excluded	Justification / Explanation
Leakages	Fugitive methane due to coal mining in the mines	CH_4	Included	These leaks are taking place in the baseline scenario associated with the uncontrolled leakage of methane in the mine
	Consumption of electricity due to mining	CO_2	Included	Leakages due to baseline activity
	Use of other types of energy resources due to mining	CO_2	Excluded	These leakages are not significant, and also for reasons of conservatism, they are excluded from consideration.

This project will result in a net change in fugitive methane emissions due to the mining activities. Source of the leakage is the fugitive methane emissions due to coal mining and electricity consumption due to coal mining. 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). For the further information on data and information that will be collected in order to monitor leakage effects of the project refer to section D.1.3.1 of the PDD version 2.0.

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.

Leakages due to consumption of other types of energy in coal mines are insignificant compared to the emissions due to electricity consumption, soin connection with this, and for reasons of conservatism, take them equal to zero.

No outstanding issues were raised.

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

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

The PDD provides estimates of:

(a) Emissions in the project scenario (within the project boundary), which are:

- 2428 tonnes of CO_2eq in 2011-2012;
- 3948 tonnes of CO_2eq in 2013-2015.

(b) Leakage, which is:

- - 367414 tonnes of CO_2eq in 2011-2012;
- -575742 tonnes of CO_2eq in 2013-2015.

(c) Emissions in the baseline scenario (within the project boundary), which are:

- 1272151 tonnes of CO_2eq in 2011-2012;
- 1993476 tonnes of CO_2eq in 2013-2015.

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are:

- 1637137 tonnes of CO_2eq in 2011-2012;
- 2565270 tonnes of CO_2eq in 2013-2015.

The estimates referred to above are given:

(a) On an annual basis;

(b) From 01/01/2011 to 31/12/2015, covering the whole crediting period;

(c) Based on primary sources;

(d) For each GHG gas, such as CO_2;

(e) In tonnes of CO_2 equivalent, using global warming potentials defined by decision 2/CP.3 or amended in accordance with Article 5 of the Kyoto Protocol.

Formulae for calculating the above estimations are given in section 4.7. All formulae are in the correct sequence and compliance across the PDD.

For calculating the estimates referred to above, key factors, e.g. energy prices and availability, market development influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as feasibility studies, production forecasts, actual historical monitored data are clearly identified, reliable and transparent.

Emission factors, such as emission factor for electricity consumption, emission factor for diesel fuel and coal, 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 average annual emission reduction estimations over the crediting period are calculated by dividing the total estimated emission reductions over the crediting period by the total number of months of the crediting period, and multiplying by twelve.

Detailed algorithms of calculations and their results are described in section D, E and supporting documents to the PDD.

No outstanding issues were raised.

4.10 Environmental impacts (48)

According to the Ukrainian law "On the ecological examination" all projects that can result in violation of ecological norms and/or negative influence on the state of natural environment are subject to ecological examination. The proposed project in general has a positive impact on the environment so is not subject to special ecological examination. The environmental impact of the project has not been considered significant or prohibitive.

A more detailed environmental impact is described below:

On the territory of industrial site and adjacent areas the topsoil was exposed to repeated contamination and destruction. In this regard, its natural structure is broken and there is no productivity. Most of the land is occupied by coal mining waste resulting in that the soil

processes are absent. Soil from excavation will be used for cover access road. To ensure proper sanitary conditions at the site of designed buildings the greening (planting grass, trees) of the territory is being planned.

During the exploitation of the designed object the following main waste will be generated: coal (rock) enrichment waste. Waste coal (rock) will be temporarily stored on the premises in specially equipped areas and then forwarded to specialized enterprises with the aim to be used for road construction.
After a waste heap is processed, the land underneath is remediated and returned to the economic use. Technological process is environmentally sound and does not require any use of hazardous materials.

Impacts on flora and fauna are insignificant. The design documentation demands re-cultivation of the landscape. Grass and trees will be planted on the re-cultivated areas in order to prevent flora and fauna degradation. No rare or endangered species will be impacted. Project activity is not located in the vicinity of national parks or protected areas.

Noise impact is limited. Main source of noise will be located at the minimum required distance from residential areas, mobile noise sources (automobile transport) will be in compliance with local standards.

Impact on air is the main environmental impact of the project activity. Dust emissions due to the erosion and project activity such as loading and offloading operations of input rock and processed coal will be limited. Also emissions from transport will be present during the project operation stage. The impact will not exceed maximum allowable concentration at the edge of the sanitary zone.

Beside the positive effect on the global climate protection, no transboundary impacts occur.

No outstanding issues were raised.

4.11 Stakeholder consultation (49)

Since the project activities do not imply any negative environmental impact and negative social effect, special public discussions were not necessary.

The project has been introduced to the Ukrainian Government and local authorities with a PIN. The authorities analyzed the project and the Letter of Endorsement has been issued by the State Environmental Investment Agency of Ukraine.

All comments relating to the project implementation were positive. No negative comments were received.

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) (write "Not applicable" in this session if the project is programme of activities)

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 «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» Project in 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.

The additionality of the project has been assessed through provision of traceable and transparent information showing that the same approach for additionality demonstration has already been taken in cases for which determination is deemed final and which can be regarded as comparable, as suggested in item "b)" of Paragraph 44 of "Guidance on criteria for baseline setting and monitoring" version 03. The PDD identifies a comparable project, demonstrates that the identified project is a comparable project was implemented under

comparable circumstances, and provides justification, that determination for a comparable project is relevant for the project at hand.

Emission reductions that occur due to the project are therefore additional to those that would have occurred without the project activity. On condition of the introduction and implementation of the project according to the design decision, the project is likely to reach the estimated amount of emission reductions.

The review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the 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 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 (Ukraine).If the written approval by the host Country is provided, it is our opinion that the project as described in the Project Design Document, version 2.0 dated 05/11/2012 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Country criteria as well as expectations of the stakeholders.

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 CARBON MARKETING AND TRADING LTD that relate directly to the GHG components of the project.

/1/ Project Design Document «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» version 1.0 dated 05/10/2012
/2/ Emission Reductions Calculation version 1.0 excel file dated 05/10/2012
/3/ Project Design Document «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» version 2.0 dated 05/11/2012
/4/ Emission Reductions Calculation version 2.0 excel file dated 05/11/2012
/5/ Letter of Endorsement #3114/23/7dated 19/10/2012 issued by the State environmental Investment Agency of Ukraine
/6/ National Inventory Report of Ukraine 1999-2010

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

/1/ Manual for screen GVCH-61
/2/ Passport for screen GIL-31
/3/ Rent agreement №12-10/02 dated 08 December 2010, and act of transfer of waste heap to the agreement №12-10/02
/4/ Consignation agreement dated 23 January 2008
/5/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of May 31, 2008
/6/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of July 31, 2008
/7/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of September 30, 2008
/8/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of May 30, 2009
/9/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of July 31, 2009
/10/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of September 30, 2009
/11/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of May 31, 2010
/12/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of July 30, 2010
/13/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of September 30, 2010
/14/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of May 31, 2011

/15/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of July 30, 2011

/16/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of September 30, 2011

/17/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of May 31, 2012

/18/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of July 31, 2012

/19/ Act of acceptance and transfer of goods to Consignation agreement dated 23 January 2008, dated as of September 30th, 2012

/20/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated May 31, 2008

/21/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated July 31, 2008

/22/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated September 30, 2008

/23/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated May 30, 2009

/24/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated July 30, 2009

/25/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated September 30, 2009

/26/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated May 31, 2010

/27/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated July 30, 2010

/28/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated September 30, 2010

/29/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated May 31, 2011

/30/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated dated July 30, 2011

/31/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated September 30, 2011

/32/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC

"Vostokpromdobycha", dated May 31, 2012

/33/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated July 30, 2012

/34/ Reconciliation Act of settling the contract № 30/01-08 dated 30.01.08. and Consignation agreement dated 01.23.08. signed by LLC "Albion - 95" and LLC "Vostokpromdobycha", dated September 30, 2012

/35/ Order № 8/11 to establish a working group for the implementation of the joint implementation project from 02.02.2011

/36/ Agreement № 30/01-08, dated January 30th, 2008

/37/ Annex №1 to the agreement №30/01-08 dated January 30th, 2008

/38/ Invoice № PH-0000689, dated 15 May 2008

/39/ Invoice № PH-0000716, dated 31 May 2008

/40/ Invoice № PH-0000911, dated 14 July 2008

/41/ Invoice № PH-0001001, dated 31 July 2008

/42/ Invoice № PH-0001116, dated 13 September 2008

/43/ Invoice № PH-0001201, dated 30 September 2008

/44/ Invoice № PH-0000399, dated 15 May 2009

/45/ Invoice № PH-0000456, dated 30 May 2009

/46/ Invoice № PH-0000622, dated 16 July 2009

/47/ Invoice № PH-0000666, dated 31 July 2009

/48/ Invoice № PH-0000811, dated 15 September 2009

/49/ Invoice № PH-0000859, dated 30 September 2009

/50/ Invoice № PH-0000332, dated 15 May 2010

/51/ Invoice № PH-0000403, dated 31 May 2010

/52/ Invoice № PH-0000615, dated 14 July 2010

/53/ Invoice № PH-0000685, dated 30 July 2010

/54/ Invoice № PH-0000896, dated 15 September 2010

/55/ Invoice № PH-0000965, dated 30 September 2010

/56/ Invoice № PH-0000337, dated 14 May 2011

/57/ Invoice № PH-0000499, dated 31 May 2011

/58/ Invoice № PH-0000726, dated 15 July 2011

/59/ Invoice № PH-0000793, dated 30 July 2011

/60/ Invoice № PH-0001034, dated 30 September 2011

/61/ Invoice № PH-0000143, dated 15 May 2012

/62/ Invoice № PH-0000150, dated 31 May 2012

/63/ Invoice № PH-0000179, dated 16 July 2012

/64/ Invoice № PH-0000201, dated 31 July 2012

/65/ Invoice № PH-0000234, dated 15 September 2012

/66/ Invoice № PH-0000241, dated 30 September 2012

/67/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for May 2008

/68/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for July 2008

/69/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for September 2008

/70/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for May 2009

/71/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for July 2009

/72/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for September 2009

/73/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for May 2010

/74/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for July 2010

/75/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for September 2010

/76/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for May 2011

/77/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for July 2011

/78/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for September 2011

/79/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for May 2012

/80/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for July 2012

/81/ Act of acceptance and transfer of goods to the Agreement № 30/01- 08 dated 30.01.2008p, for September 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/ V. Solanik – director of of Limited Liability Company «ALBION-95»

/2/ D. Shilov – Head of processing factory of Limited Liability Company «ALBION-95»

/3/ L. Reznik – cheef bookkeeper of Limited Liability Company «ALBION-95»

/4/ Tahir Musayev - representative of the project Developer CARBON MARKETING AND TRADING LTD

/5/ Valentina Bubenok - representative of the project Developer CARBON MARKETING AND TRADING LTD.

BUREAU VERITAS CERTIFICATION HOLDING SAS

DETERMINATION PROTOCOL
BUREAU VERITAS CERTIFICATION HOLDING SAS

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 the project «Waste Heap Dismantling in Antratsitovsky district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere»	OK	OK
-	Is the sectoral scope to which the project pertains presented?	Sectoral scope: 8 mining/mineral production	OK	OK
-	Is the current version number of the document presented?	The current version: 1.0	OK	OK
-	Is the date when the document was completed presented?	The document was completed on 05/10/2012	OK	OK
-	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the:	a) Slow burning of waste heaps until the coal is burned down. b) Waste heaps will be burning and emitting GHG	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description)?	into the atmosphere until the coal is consumed. c) Project activities include installation of the equipment for coal extraction and beneficiation near the processing waste heaps and applying special machinery that will perform preparation, loading and transportation of the rock from the waste heaps to the beneficiation factory.		
-	Is the history of the project (incl. its JI component) briefly summarized?	The JI was one of the drivers for the project from the very beginning.	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	CAR01 Please indicate the party of the buyer in section A.3 of the PDD.	CAR01	OK
-	Is the data of the project participants presented in tabular format?	Yes, the data of the project participants is presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	Yes, the contact information provided in Annex 1 of the PDD	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	It is indicated that Ukraine is the host Party.	OK	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Luhansk region	OK	OK
-	City/Town/Community etc.	Fedorivka village	OK	OK
-	Detail of the physical location, including	The geographic coordinates of the site are: +48° 19'	OK	O K

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	information allowing the unique identification of the project. (This section should not exceed one page)	30.56", +38°50' 8.43"		
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?	CAR02 Please provide commissioning statements on GVCH-61, GIL-52, GIL-31, GLKV-1500 CAR03 Please add implementation schedule in section A.4.2. of the PDD.	CAR02 CAR03	OK OK
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)	Emission reductions due to the implementation of this project will come from three major sources: - Removing the source of green-house gas emissions from the burning / slow burning waste heap by the extraction of non-combusted coal contained in a waste heap; - Negative leakage through reduced fugitive emissions of methane due to the replacement of coal that would have been mined, by the coal extracted from the heap	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		under the project activity. - Reduce electricity consumption at waste heap dismantling in comparison with energy consumption at coal mining.		
-	Is it provided the estimation of emission reductions over the crediting period?	Yes, the estimation of emission reductions over the crediting period is provided in section A.4.3.1 of the PDD.	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	The estimated annual reduction for the chosen credit period is provided in tCO2e.	OK	OK
-	Are the data from questions above presented in tabular format?	The data from questions above presented in tabular format.	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	Yes, the length of the crediting period is 5 years.	OK	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	Estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent are provided?	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as “Parties involved” in the PDD provided written project approvals?	According to national Ukrainian procedure the LoA by Ukraine is expected after the project determination. CAR04	CAR04 CAR05	OK Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Please provide the Letter of Endorsement CAR05 Please provide LoA		
19	Does the PDD identify at least the host Party as a "Party involved"?	Ukraine (host Party) is identified as a "Party involved".	OK	OK
19	Has the DFP of the host Party issued a written project approval?	See section 19 above.	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	See section 19 above.	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 section 19 above.	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach	JI specific approach was chosen for identifying the baseline.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− Approved CDM methodology approach			
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	Yes, the PDD provides a detailed theoretical description in a complete and transparent manner. For detailed information see section B.1 of the PDD.	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	a) Plausible future scenarios were identified in order to establish baseline; b) It is demonstrated by the above analysis that the baseline chosen clearly represents the most probable future scenario given the circumstances of modern day Luhansk coal sector; c) Taking into account relevant national and/or sectoral policies and circumstance; 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 variables contained in appendix B to “Guidance on criteria for baseline setting and monitoring”, as appropriate;	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?			
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?	It is indicated in the PDD no CDM methodologies or methodological tools are used for baseline choice, justification and settings, because among the methodologies approved by the CDM Executive Board there is none fully matching the proposed JI project.	OK	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	CEF for power greed of Ukraine is used in the project.	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	The PDD indicates that the following approaches for demonstrating additionality is used: Provision of traceable and transparent information that an AIE has already positively determined that a	CAR06	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent version of the "Tool 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".	comparable project (to be) implemented under comparable circumstances has additionality. CAR06 Please specify why the comparable projects have similar scale. Provide appropriate values which have been compared for the conclusion.		
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	The PDD provides a justification of the applicability of the approach with a clear and transparent description.	OK	OK
29 (b)	Are additionality proofs provided?	Yes, additionality proofs are provided.	OK	OK
29 (c)	Is the additionality demonstrated	Project "Dismantling of Waste Heap #2 at Mine #22	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriately as a result?	"LISOVA" (ITL project ID: UA1000329) was used to meet criteria identified by the Guidance. Thus, all requirements are satisfied and the identified project is indeed a comparable project implemented under comparable circumstances.		
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	N/A	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 boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: 1. Under the control of the project participants; 2. Reasonably attributable to the project; 3. Significant;	OK	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?	Yes, the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above.	OK	OK
32 (c)	Are the delineation of the project	The delineation of the project boundary and sources	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	included are described in the PDD by using figures 5, 6 of the PDD.		
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?	Yes, all emission sources are explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified. CL01 Please clarify what does mean crossed out circle on figures # 5,6.	CL01	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?	Starting date of the project is 08/12/2010. This date is the date of real action of the project begins. CAR07 Please provide document that reflects date 08/12/2010 as the date of project start.	CAR07	OK
34 (a)	Is the starting date after the beginning of 2000?	The starting date of the project is after the beginning of 2000.	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	The operational lifetime of the project is 5 years or 60 months.	OK	OK
34 (c)	Does the PDD state the length of the	The length of the first crediting period is 2 years or	CL02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	crediting period in years and months?	24 months. The length of the crediting period starting on the 01/01/2011 and ending on the 31/12/2015 will be 5 years or 60 months. CL02 Please explain how operational life time of the project (60 months) can be less than the length of the whole crediting period (96 months)?		
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?	01/01/2011 is the date of actual dismantling and enrichment of waste heaps.	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 the project?	The PDD states that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.	OK	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	PDD states that the extension is subject to the host Party approval. The estimations of emission reductions are presented separately for those until 2012 and those after 2012.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	The PDD explicitly indicates that JI specific approach is used.	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 explicitly describes: 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; For detailed information see section B of the PDD.	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 reductions or enhancements of net removals to be monitored?	The monitoring plan uses reliable sources, such as National Inventory Report of Ukraine 1990-2010 and NEIA orders # 43,62,63,75.	OK	OK
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources?	Values contained in section D of the PDD met all necessary requirements.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?			
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?	The amount of weighted coal, the amount consumed fuel and the amount of consumed electricity are values that will be provided by project owner. Monitoring plan clearly identifies how the values are to be selected and justified.	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?	The monitoring plan clearly indicates references from which these values are taken. CAR08 Reference # 42 does not work. Please correct it.	CAR08	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	The monitoring plan specifies the procedures to be followed if expected data are unavailable. CAR09 Please provide proofs on calibration of railroad scales used in the project.	CAR09	OK
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units aren't used, but some units are used.	OK	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc.	The monitoring plan doesn't note any parameters, coefficients, variables, etc that are to be obtained	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	that are used to calculate baseline emissions or net removals but are obtained through monitoring?	through monitoring in order to calculate baseline emissions.		
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	According to the monitoring plan and the PDD, the use of the parameters and variables is consistent between the baseline and 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 is established taking into account 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 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	The monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination. (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination. (iii) Data and parameters that are monitored throughout the crediting period. For further information see tables in section D.1 of the PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitored throughout the crediting period?			
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	Yes, the monitoring plan describes the methods employed for data monitoring (including its frequency) and recording.	OK	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?	All algorithms and formulae used for the estimation of baseline and project emissions are indicated and explained in the PDD.	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the algorithms/formulae is presented.	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	All variables and equation formats are consistent and used in appropriate way.	OK	OK
36 (f) (iii)	Are all equations numbered?	Equations needed for calculations described in section B and section D of the PDD. All equations are numbered.	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	All variables with units indicated are defined.	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the procedures is justified.	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level in key parameters identified as low in table D.2 “Quality control and quality assurance procedures undertaken for data monitored”.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions of the baseline scenario.	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	The algorithms and formulae are explained.	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	In the PDD project developer describes procedures that are in compliance with technical procedures at LLC "ALBION-95".	OK	OK
36 (f) (vii)	Are references provided as necessary?	References for documents required for ERUs calculation are provided.	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Key assumptions are both presented in a transparent manner and explained in the PDD.	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?	In the PDD there is not stated any information about significant uncertainty level of assumptions and procedures.	OK	OK
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	In the PDD project developer described the uncertainty level of key parameters. Uncertainty level of concerned data was assessed as low.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	enhancements of net removals provided?			
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?	No national or international monitoring standards are used for monitoring of the JI project implementation.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	Not applicable for given JI project.	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 information on the quality assurance and control procedures, including information about calibration and how monitoring data are to be recorded and collected is presented in the monitoring plan section D.2 and D.3.	OK	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring	The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. See section D.3 of the PDD for	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	activities?	detailed information.		
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Monitoring plan reflects good monitoring practices of waste heaps dismantling projects.	OK	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	Presented in the PDD monitoring plan provides a complete compilation of the data that are need to be collected for its application, including data that are measured or sampled and data that are collected from other sources. Data concerning the baseline scenario and emission reductions calculation are stated in tabular format in section D of the PDD.	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 the data monitored and required for emission reductions calculation will be kept for two years after the last transfer of ERUs. CAR10 Please provide order on data gathering and collection for at least 2 years after the last transfer of ERUs for the project.	CAR10	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	There is no selected elements or combinations of approved CDM methodologies	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				
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 describes an assessment of the potential leakage of the project and appropriately explains which sources of leakage are to be calculated, and which can be neglected. Source of the leakage is the fugitive methane emissions due to coal mining. Please, refer to section B.3 of the PDD for detailed information	OK	OK
40 (B)	Does the PDD provide a procedure for an ex ante estimate of leakage?	The PDD indicates that assessment of emission reductions in baseline scenario and in the project scenario was chosen.	OK	OK
Approved CDM methodology approach only_Paragraph 41_Not applicable				
Estimation of emission reductions or enhancements of net removals				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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	PDD indicates assessment of emissions or net removals in the baseline scenario and in the project scenario.	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?	PDD provides ex ante estimates of: (a) Emissions for the project scenario (within the project boundary); (b) Leakage; (c) Emissions for the baseline scenario (within the project boundary); (d) Emission reductions adjusted by leakage;	OK	OK
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)?	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?			
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 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	The baseline emissions and project emissions are given on a periodic basis from the beginning to the end of the crediting period for each year. Baseline and project emissions are carried out for CO_2 as GHG gas. Formulae used for calculating the estimates that are indicated in section D and section E are consistent throughout the PDD and calculation Excel spreadsheets. As there was already mentioned above, data sources used for calculating the estimates are clearly identified. Among key factors influencing the baseline emissions or the activity level of the project as well as risks associated with the project the Carbon Emission Factor for electricity is taken into account. The emission factor of Ukrainian grid used for calculation the estimates in the JI project is selected with appropriate accuracy. Choice of emission factor is justified in the project design documents. Conservative assumptions are taken into account while estimating emission reduction.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 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	Tables with calculation results of CO_2 emission reductions are provided in the PDD. As a fact, estimated total value of CO_2 emission reductions for the first crediting period is 1637137 tonnes CO_2 equivalent; moreover, estimated total value of CO_2 emission reductions for the period 2013-2015 is 2565270 tonnes CO_2 equivalent.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	The calculations of the baseline emissions and project emissions are to be performed ex post. Also, ex ante calculation of emissions is provided in the PDD. All estimated values are presented in section E of the PDD and Excel spreadsheets.	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 proposed project in general has a positive impact on environment so it is not subject to special ecological examination. See section F.1 for details	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?	See section 48(b).	OK	OK
Stakeholder consultation				
49	If stakeholder consultation was	The Host Party doesn't require stakeholders'	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	consultation process for the JI project. No stakeholders' comments connected with JI project were obtained. Also, stakeholders' comments will be collected during the determination procedure.		
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 indicate the party of the buyer in section A.3 of the PDD.		According to national legislation in the PDD a potential buyer of emission reduction units the project participants is indicated. The party of the project participant will be included in the first monitoring report after receiving the letter of approval of the project one of the parties listed in Annex 1. The potential party of the buyer is indicated in section A.3 of the PDD.	The issue is closed
CAR02 Please provide commissioning statements on GVCH-61, GIL-52, GIL-31, GLKV-1500		Commissioning statements on GVCH-61, GIL-52, GIL-31, GLKV-1500 is provided to determination group.	The issue is closed
CAR03 Please add implementation schedule in section A.4.2. of the PDD.		Implementation schedule is added in section A.4.2. of the PDD.	The issue is closed
CAR04 Please provide the Letter of Endorsement	19	The Letter of Endorsement is provided.	The issue is closed

CAR05 Please provide LoA	19	According to national Ukrainian procedure the LoA by Ukraine is expected after the project determination.	Pending
CAR06 Please specify why the comparable projects have similar scale. Provide appropriate values which have been compared for the conclusion.	28	Volume of rock mass per year allowed to process is comparable in the proposed and comparative projects (about 700 and 800 thousand tons of rock mass per year respectively).The scale of coal extraction is limited by the coal content of the waste heap matter and the size of the waste heaps	The issue is closed
CL01 Please clarify what does mean crossed out circle on figures # 5,6.	32(d)	The crossed out circle on figures # 5,6 means “Emissions due to burning of coal excluded from consideration”. This information is provided in the following description below the figures.	The issue is closed
CAR07 Please provide document that reflects date 08/12/2010 as the date of project start.	34(a)	The rental agreement of waste heap dated 08/12/2010 is provided to determination group.	The issue is closed

CL02 Please explain how operational life time of the project (60 months) can be less than the length of the whole crediting period (96 months)?	34(c)	In the PDD the length of crediting period has been specified incorrectly. The operational life time of the project and the length of the crediting period are equal (60 months)	The issue is closed
CAR08 Reference # 42 does not work. Please correct it.	36 (b) (ii)	Reference # 42 is corrected.	The issue is closed
CAR09 Please provide proofs on calibration of railroad scales used in the project.	36 (b) (iii)	Weighting of the coal is caring out by the automobile electronic-tensometric scales 80ВА1ПБ brand.	The issue is closed
CAR10 Please provide order on data gathering and collection for at least 2 years after the last transfer of ERUs for the project.	36(m)	The order is provided to determination group.	The issue is closed