DETERMINATION REPORT
SIA "VIDZEME EKO"

DETERMINATION OF THE
WASTE HEAP DISMANTLING BY PE "ARDS-SERVIS" WITH THE AIM OF DECREASING GREENHOUSE GASES EMISSIONS INTO THE ATMOSPHERE.

REPORT NO. UKRAINE-DET/0549/2012

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BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-det/0549/2012

DETERMINATION REPORT WASTE HEAP DISMANTLING BY PE "ARDS-SERVIS" WITH THE AIM OF DECREASING GREENHOUSE GASES EMISSIONS INTO THE ATMOSPHERE.

Date of first issue:	Organizational unit:
04/07/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
SIA "Vidzeme Eko"	Gennadiy Ivanenko

Summary:

Bureau Veritas Certification has made the determination of the "Waste heap dismantling by PE "Ards-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere" project of SIA "Vidzeme Eko" located in Shakhtarsk town, Donetsk Region, Ukraine on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

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

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

Report No.:	Subject Group:
UKRAINE-det/0549/2012	JI

Project title:
Waste heap dismantling by PE "Ards-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere.

Work carried out by:
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1 INTRODUCTION

SIA "Vidzeme Eko" has commissioned Bureau Veritas Certification to determine its JI project "Waste heap dismantling by PE "Ards-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere" (hereafter called "the project") at Shaktarsk town, Donetsk Region, Ukraine.

This report summarizes the findings of the determination of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

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

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

1.2 Scope

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

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

1.3 Determination team

The determination team consists of the following personnel:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

Vyacheslav Yeriomin
Bureau Veritas Certification Climate Change Verifier

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal reviewer

Nikolay Chekhmestrenko
Bureau Veritas Certification, Technical Specialist

2 METHODOLOGY

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

In order to ensure transparency, a determination protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of determination and the results from determining the identified criteria. The determination protocol serves the following purposes:

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

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

2.1 Review of Documents

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

To address Bureau Veritas Certification corrective action and clarification requests, SIA "Vidzeme Eko" revised the PDD and resubmitted it on 03/07/2012.

The determination findings presented in this report relate to the project as described in the PDD version 1.1.

2.2 Follow-up Interviews

On 26/06/2012 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 SIA "Vidzeme Eko", ARDS-Service were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

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

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

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

(a) Corrective action request (CAR), requesting the project participants to correct a mistake in the published PDD that is not in accordance with the (technical) process used for the project or relevant JI project requirement or that shows any other logical flaw;

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

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

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

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

3 PROJECT DESCRIPTION

Proposed project provides complete dismantling of the dump at the "Shakhtarska – Glyboka" mine with further reclamation of the area by restoring its fertile layer. During dismantling of the dump, the rocks will be divided into fractions, which will be used for blending with steam coal and subsequently supplied to heat power plants and boiler houses for burning as fuel. After sorting, the large fractions will be used for building and repairing of roads. As the result, rock mass of the dump will be fully utilized, and the received coal will replace coal, which otherwise would have had to be mined. As the result of the project, the opportunity of self-ignition of heap will be eliminated. An important component of the project is its second phase – complex reclamation of the area by restoring its fertile layer and full restoration of natural ecological community. This part of the project is required, but totally expensive, due to this mechanism of joint implementation was one of the prominent factors of the project from the beginning, and financial benefits as part of this mechanism considered one of the reasons of the project implementation.

The project provides the assemblage and installation of sorting rock mass complex of dump of "Shakhtarska – Glyboka" mine consisting of :

- Point of loading rock mass on Conveyor SP-202MS5;
- -Point of sorting rock mass in classes 0-30 mm and 30 mm (vibrating inertial sifter GIL-43A6);
- Point of storage class 0-30 mm (sheds).

Class +30 mm is expected (as required under discharging tray of sifter) to be loaded in transports and delivered to customers for building and repairing of category 4-5 roads. Class 0-30 mm is expected to be loaded in transports, undergoes a mandatory procedure of weighting and is sent to the consumer (SPC "Oblpalyvo") for blending and subsequent

combustion in the thermal power plants or boiler houses. Blending of fraction (0-30) with a steam coal allows realizing the fine finishing of quality the energy coal to the requirements of Standart 4083-2002, without compromising the quality of fuel on the one hand, but resulting in saving valuable energy coal on the other hand.

Technological scheme of the complex is as follows:
The rock mass of disassembly dump is delivered to the feeding scraper conveyor SP-202MS by Loader TO-28A with a bucket capacity of 2.5 m3. Humidification is applied (if the humidity of material doesn't exceed 8%) with sprinklers before the rock mass is delivered on the conveyor belt.
From the scraper conveyor through the handling unit the rock mass is fed to the sifter GIL-43A for the sorting into two classes - 0-30 mm and +30 mm. Productivity of the sifter on the original product is up to 200 tons / hour. Product of sifter screens +30 mm through the discharge tray, equipped with built-in nozzles for humidification, filled on the intermediate platform without significant accumulation. From the intermediate platform this fraction by the loader Amkodor-342V loaded into trucks and transported to the consumer (for building and repairing of category 4-5 roads).

Product of sorting class 0-30 through handling unit of sifter supplied on belt conveyor KLS7. From the belt conveyor rock mass of class 0-30 mm through the handling unit of conveyor with built-in nozzles for humidification, emptied on the intermediate platform without significant accumulation, where loader ZL-50F loaded it in trucks or on a platform (warehouse) for storage. Warehouse is used if necessary without long-term storage. From storage the rock mass 0-30 mm by loader is loaded into trucks.

The project capacity of the complex allows to process 400 000 m^3 of rock per year.

Identified problem areas for project description, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 01-CAR 05).

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 16 Corrective Action Requests and 2 Clarification Requests.

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

4.1 Project approvals by Parties involved (19-20)

The project has already received Letter of Endorsement #1599/23/7 dated 25/06/2012 issued by State Environmental Investment Agency.
The Bureau Veritas Certification obtained Letter of Endorsement from SIA "Widzeme-Eko" and doesn't doubt in its authenticity.
As for this time no written project approvals of the project from the Parties Involved are available (see CAR16 pending till the Host Party LoA received). After receiving Determination Report from the Accredited Independent Entity (AIE) project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environment Investment Agency for receiving the Letter of Approval.
The written approvals from the other Party will be obtained later on.

4.2 Authorization of project participants by Parties involved (21)

In accordance with paragraph 21 of the DVM the assessment of this area focuses on whether each of the legal entities listed as project participants in the PDD is authorized by a Party involved, which is also listed in the PDD.
Authorisation of the project participants by Parties involved is expected through a written project approval, see CAR16 that is pending.

4.3 Baseline setting (22-26)

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

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

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

Scenario 1. Continuation of existing situation

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

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

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

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

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

Scenario 4. Coal extraction from waste heaps without JI incentives
Investment barrier: This scenario is financially unattractive and faces barriers. Detailed description of proposed scenario barriers is provided in the section B.2 of the PDD version 2.1.

Scenario 5. Systematic monitoring of waste heaps condition and regular fire prevention and extinguishing measures

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

In this context, the Bureau Veritas Certification assessed whether the key factors that affect a baseline were taken into account. The project participants established the baseline taking into account the following key factors:

- sectoral reform initiatives;
- local fuel availability;
- power sector expansion plans;
- economic situation in the project sector.

The project participants applied the selected approach with transparency. Necessary information on approaches, assumptions, parameters, data sources and key factors is available in the PDD

Project participants used default values to the extent possible in order to reduce uncertainty and provide conservative data for emission calculations.
Also, conservative approach is the calculation of energy consumption, as the maximum possible consumption by 2-shift work of the main and auxiliary equipment throughout the year without exception.

According to the proposed approach emission reductions will be earned only within the project activity, so no emission reductions can be earned due to any changes outside the project activity or due to force majeure.
According to the described approach, emission reduction units shall be obtained only when due to the project boundaries coal will be extracted from the dump

Identified problem areas for baseline for baseline setting, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 06, CAR 07, CL 01).

4.4 Additionality (27-31)

The project "Dismantling of waste heap at former mine "ROZSYPNYANSKA-1" is selected as the comparable JI project. Accredited independent entity has already positively determined that it would result in a reduction of anthropogenic emissions by sources or an enhancement of net anthropogenic removals by sinks that is additional to any that would otherwise occur. This determination has already been deemed final by the JISC. Appropriate documentation such as PDD and Determination Report regarding this project is available traceably and transparently on the UNFCCC JI Website.

http://ji.unfccc.int/JIITLProject/DB/0RQXGLUAS7ETAGMUQZWFQPJLN1SIAW/details

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

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

b) Both projects are implemented within the **same country and the same time**: The proposed project and identified comparable project are both located in Ukraine, Donetsk Region, both projects crediting period starts 01/10/2008.

c) **Scale.** The difference between the proposed project and the other project(s) is less than 50 per cent in terms of the projects output (i.e. power output, capacity increase, etc.) or service provided; and
The projects envisage production of the same product (rock mass sorting), average rock mass outputs for both projects differ by merely 25%. Criteria is satisfied.

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

The desk review of provided information and follow-up interviews enabled Bureau Veritas Certification Holding SAS to assess that all explanations, descriptions and analyses in the demonstration of additionality were made in accordance with criteria of "Guidance on criteria for baseline setting and monitoring ",version 03" and this projects is indeed comparable

project, implemented under comparable circumstances. The proposed JI activity provides the reductions in emissions by sources that are additional to any that would otherwise occur.

Identified problem areas for project additionality, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 08).

4.5 Project boundary (32-33)

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

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

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

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

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

All gases and sources included in the project boundary were explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified and provided in Table 20 of the PDD.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD by using Figures 7-8 in section B.3 of the PDD.

Identified problem areas for project boundaies, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 09).

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began, and the starting date is 01/09/2008, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 4 years and 3 months.

The PDD states the length of the crediting period in years and months, which is 4 years and 3 months, and its starting date as 01/10/2008, which is on the date the first emission reductions or enhancements of net removals are generated by the project.

The PDD states that the crediting period for the issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.

Identified problem areas for project crediting period, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A to the Determination Report (refer to CAR 10, CAR 11).

4.7 Monitoring plan (35-39)

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

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as value of extracted coal, values of consumed electricity, diesel fuel.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions or enhancements of net removals to be monitored such as Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity

at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine.

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

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination, such as Global Warming potential of the Methane, Methane Density, Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine

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

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

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

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

The annual emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y, \quad (1)$$

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

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y}, \quad (2)$$

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

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

$$BE_{WHB,y} = FC_{BE,Coal,y}/1000 \cdot \rho_{WHB} \cdot NCV_{Coal} \cdot OXID_{Coal} \cdot K_{Coal}^{c} \cdot 44/12 \quad (3)$$

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

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

$$FC_{BE,Coal,y} = FR_{Coal,y} \cdot (1-A_{rock,y}/100-W_{rock,y}/100) \cdot (1-A_{Coal}/100-W_{Coal}/100) \quad (4)$$

where:
$FR_{Coal,y}$ - amount of sorted fraction (0-30mm), which is extracted from the dumps because of the project in a year y, that came to blending with further combustion in thermal power plants, t;
$A_{rock,y}$ - the average ash content of sorted fractions (0-30mm), which is extracted from dump in year y,%
$W_{rock,y}$ - the average humidity of sorted fractions (0-30mm), which is extracted from dump in year y, %;
A_{Coal} - the average ash content of coal, mined in Donetsk region of Ukraine, %;

W_{Coal} - the average humidity of coal, mined in Donetsk region of Ukraine, %;
100 - conversion factor from percent to fraction, d/l.

Emissions from the project activity are calculated as follows:

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

where:
PE_y - project emissions due to project activity in the year *y* (tCO2 equivalent),
$PE_{EL,y}$ - project emissions due to consumption of electricity from the grid by the project activity in the year y (tCO2 equivalent),
$PE_{Diesel,y}$ - project emissions due to consumption of diesel fuel by the project activity in the year *y* (tCO2 equivalent).

The Project emissions due to consumption of electricity from a grid in a year y are calculated as follows:

$$PE_{EL,y} = EC_{PE,y} \cdot EF_{CO2,EL} \quad (6)$$

where:
$EC_{PE,y}$ - additional amount of electricity, consumed in project in year y, MWh;
$EF_{CO2,EL}$ - Specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/MWh;

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

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

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

Leakages in year y are calculated as follows:

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

where::
LE_y - leakages in year y, (t CO2e);

$LE_{CH4,y}$ - leakages due to fugitive emissions of methane in the mining activities in the year *y*, (t CO2e);
$LE_{EL,y}$ - leakages due to consumption of electricity from a grid at coal mine in a year y,(t CO2e);

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

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

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y,* t, calculated as (4);
EF_{CH4} - emission factor for fugitive methane emissions from coal mining, m3/t;
ρ_{CH4} - methane density at standard conditions t/m3;
GWP_{CH4} - Global Warming Potential of Methane, tCO2/ tCH4.

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

$$LE_{EL,y} = - FC_{BE,Coal,y} \cdot N_{Coal,y}^{E} \cdot EF_{CO2,EL,y} \quad (10)$$

Where
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y,* t, calculated as (2);
$N_{Coal,y}^{E}$ - Average electricity consumption per tonne of coal, produced in Ukraine in the year y, MWh/t;
$EF_{CO2,EL,y}$ - Specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/ MWh

The monitoring plan presents the quality assurance and control procedures for the monitoring process described in the section D.2 of the PDD. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. Clear and transparent scheme of monitoring data flow is provided in the section D.3 of the PDD.

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

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature etc.) but not including data that are calculated with equations.

The monitoring plan indicates that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.

Identified problem areas for project monitoring plan, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A to the Determination Report (refer to CAR 12, CAR 13, CL 02).

4.8 Leakage (40-41)

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

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

This leakage is measurable: through the same procedure as used in 2006 IPCC Guidelines (See Volume 2, Chapter 4, Page 4-11) and also used in CDM approved methodology ACM009, Version 03.221 (Page 8). Activity data (in our case amount of coal extracted from the waste heap which is monitored directly) is multiplied by the emission factor (which is sourced from the relevant national study – National Inventory Report of Ukraine under the Kyoto Protocol) and any conversion coefficients.

Electricity consumption and related greenhouse gas emissions due to dismantling of waste heap to be taken into account in calculating the project emissions. Carbon dioxide emissions due to electricity

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

Identified problem areas for project leakages, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 14).

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

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

The PDD provides the ex ante estimates of:

(a) Emissions or net removals for the project scenario (within the project boundary), which are 35596 tonnes of CO2eq for period 01/10/2008-31/12/2012;

(b) Leakage, as applicable, which are -451431 tonnes of CO2eq for period 01/10/2008-31/12/2012;

(c) Emissions or net removals for the baseline scenario (within the project boundary), which are 1447379 tonnes of CO2eq for period 01/10/2008-31/12/2012;

(d) Emission reductions or enhancements of net removals adjusted by leakage (based on (a)-(c) above), which are 1863483 tonnes of CO2eq for period 01/10/2008-31/12/2012.

The estimates referred to above are given:

(a) On a yearly basis;

(b) From 01/10/2008 to 31/12/2012, covering the whole crediting period;

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

(d) For each GHG gas, which is CO2

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

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

For calculating the estimates referred to above, key factors, e.g. local prices for electricity, coal and diesel fuel, available production resources, influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project were taken into account, as appropriate.

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

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

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

The estimates referred to above are consistent throughout the PDD.

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

4.10 Environmental impacts (48)

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

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party, if the analysis referred to above indicates that the environmental impacts are considered significant by the project participants or the host Party.

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

Identified problem areas for environmental impacts, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 15).

4.11 Stakeholder consultation (49)

The host Party for the project is Ukraine. The project meets the applicable standards and requirements, set forth in Ukraine. The Host Party does not put forward the requirement to consult with stakeholders to JI projects.

Any comments from local authorities or stakeholders were not obtained.

4.12 Determination regarding small scale projects (50-57)

"Not applicable"

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

"Not applicable"

4.14 Determination regarding programmes of activities (65-73)

"Not applicable"

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

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Waste heap dismantling by PE "ARDS-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere" Project in Shakhtarsk town, Donetsk Region, Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 1.1 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

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

The review of the project design documentation (version 1.1) and the subsequent follow-up interviews have provided Bureau Veritas

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

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

7 REFERENCES

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

/1/ Project Design Document "Waste heap dismantling by PE "ARDS-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere" version 1.0 dated 22/06/2012
/2/ Project Design Document "Waste heap dismantling by PE "ARDS-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere" version 1.1 dated 03/07/2012
/3/ ERUs calculation Excel File "Calculation1.11_xlsx"
/4/ Letter of Endorsement #1599/23/7 issued by State Environmental Investment Agency of Ukraine dated 25/06/2012

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

/1/ Contract of carbonaceous fraction supply # 02/01-11 from 02/01/2011 . (in Russian).
/2/ Act of admission and transmission of waste heap from 18/08/2008 between PE ICC "Altair-2007" and PE "ARDS-SERVIS"
/3/ Agreement # 18/08/08 from 18/08/2008 between PE ICC«Altair-2007» and PE "ARDS-SERVIS"
/4/ Passport of waste heap under dismantling from 23/05/2006
/5/ Passport. Scales automobile electronic tenzometric VTA-60, 04/11/2007 #091200795 (in Russian).
/6/ Agreement of subcontract # 02/01-1 from 02/01/2011 between PE "ARDS-SERVIS" and PE "Industrial commercial company "Technoprominvest" on the work of the dump dismantling.
/7/ Agreement of subcontract # 02/01/11-2 from 02/01/2011 between PE "ARDS-SERVIS" (Customer) and Ltd "Niva-2012" (Performer) on the work on mining reclamation of the dump
/8/ Agreement of subcontract # 02/01/11-1 from 02/01/2011 between Ltd "Niva-2012"and PE Industrial commercial company "Technoprominvest" on the work of the dump dismantling.
/9/ Agreement of subcontract # 18/08/08-3 from 18/08/2008 between PE " Industrial commercial company "Technoprominvest" and "Trading Company "Antares" on the work of the dump dismantling.
/10/ Agreement of subcontract # 18/08/08-3 from 18/08/2008 between PE "ARDS-SERVIS" (Customer) and "Trading Company "Antares" (Performer) on the work of the dump dismantling.
/11/ Certificate of metrological certification #156 from 014/11/2008, the scales automobile electronic tenzometric VTA-60 № 091200795
/12/ Certificate of metrological certification # 169 from 21/10/2009 the

scales automobile electronic tenzometric VTA-60 № 091200795 .

/13/ Certificate of metrological certification #132 from 18/11/2010 the scales automobile electronic tenzometric VTA-60 № 091200795

/14/ Certificate of metrological certification # 146 from 25/10/2011. the scales automobile electronic tenzometric VTA-60 № 091200795.

/15/ Registration certificate MB.2.844.000 ПС on Hygrometer psychrometric issued JSK «Steclopribor» (in Russian).

/16/ Order Derjspojivstandart Ukraine "Donetskstandartmetrolohiya” SC # 283 of 15/04/2011, the appointing committee to check the conditions for certification of Coal Laboratory.

/17/ Certificate attestation of Coal Chemic al Laboratory PE "Industrial - Commercial Firm" UKRHYMVUHLEKACHESTVO” # VL-089/2011 issued 4/22/2011 was in force prior to 22/04/2014.

/18/ Certificate number 361 and the protocol number 361 of 28/05/2008, the screening laboratory certification number 347 for grain size and purity sifter loose types of materials to form a square cell that belongs to JSC "Rodnik".

/19/ Certificate # 00732 and the protocol # 00732 from 15/08/2010, the certification of sieves with mesh metal square cells, type SL-200, pl. # 26047.

/20/ Certificate # 362 and the protocol # 362 from 28/05/2008, the screening laboratory certification # 348 for grain size and purity sifter loose kinds of materials with a round shape cell

/21/ Certificate # 334 and the protocol # 334 from 01/10/2008 certification of electric laboratory SNOL 7,2/1100 pl. # 06174.

/22/ Certificate # 72 dated 05/05/2011, at Electric laboratory SNOL 67/350, pl. # 11928.

/23/ Certificate # 71 dated 05/05/2011, at Electric SNOL 7,2/1100 pl. # 05793.

/24/ Certificate # 10 and protocol # 10 dated 25/01/2011, the certification # 347 sieve control type SLM, pl. # 26047 to determine the grain size and purity sifter loose types of materials to form a square cell..

/25/ Certificate # 9 and protocol # 9 dated 25/01/2011, the certification # 347 sieve control type SLM, pl. # 347 to determine the grain size and purity sifter loose types of materials to form a square cell.

/26/ Certificate # 8 and protocol # 8 dated 25/01/2011, the screening laboratory certification # 347, pl. # 348 to determine the grain size and purity sifter loose kinds of materials with a round shape cell.

/27/ Certificate # 7 dated 20/01/2011, at Electric laboratory furnace SNOL 7,2/1100 pl. # 103426

/28/ Certificate # 330 and the protocol # 330 dated 23/09/2008, the certification of the drying box SNOL 67/350, pl. # 12357

/29/ Act dated 20/04/201 on the execution of the "Donetskstandartmetrolohiya" SC , coal laboratory tests on PE "VFK" UKRHYMUHLEKACHESTVO " certification criteria.

/30/ Act # 26/70190 of the state weights laboratory calibration of general purpose and standard of all types, certified screens of all types, metrological certification muffle furnaces, electric resistance furnaces.

/31/ Guarantee tickets to the electronic scales A 6000, # 759, electronic scales XAS 100/C # 479, # 759, furnace SNOL 67/350, pl. # 12 357 , laboratory electric

furnace SNOL 7.2/1100 № 06174

/32/ Expert opinion dated 31/03/2011, with the results of examination of documents submitted Coal Laboratory PE "TCF" UKRHYMUHLEKACHESTVO "which examined on measurements in in the state metrological supervision.

/33/ Journal of weighing equipment and technology for coal laboratoriesfirm "Ukrhimuglekachestvo" (in Russian).

/34/ Passport # 9. Electric Laboratory, pl. # 05793, inv. # 9, the type -SNOL 7.2/1100 (in Russian).

/35/ Passport # 7. Electric Laboratory furnace, pl. # 11928, inv. # 7, thetype - SNOL 67/350 (in Russian).

/36/ Passport # 6. Sieve Laboratory, pl. # 347, inv. # 6 (in Russian).

/37/ Passport # 5. Sieve Laboratory, pl # 348, inv. # 5 (in Russian).

/38/ Passport # 4. Stopwatch pl. # 7095, inv. # 4, type SOPpr 2a-2-010(in Russian)

/39/ Passport # 3. Electronic Scales, pl. # 209 807, inv. # 3, the type ofXAS 100/1 (in Russian).

/40/ Passport # 2. Electronic Scales, pl. # 214295, inv. # 2, the type ofXAS 100/1 (in Russian).

/41/ Passport # 1. Scales pl. # 759, inv. # 1, type A-6000 ((in Russian).

/42/ Plan for coal laboratory firm "Ukrhimuglekachestvo" (in Russian).

/43/ Guide of maintenance. Electric water distiller pharmacy, DE-4-02"EMO" OKP 94 5243, model 737 (in Russian).

/44/ Certificate of verification of the working measuring instrument from 15/03/2012 # 02/08-245 - mechanical stopwatch JOP pr-2a-2-000pl. # 7095.

/45/ Passport. Mechanical Stopwatch SOppr-2a-2-010 (in Russian).

/46/ Quality Certificate # 005 dated 25/04/2008, the chopper vibrating75T - DRM, pl. # 1087 (in Russian)

/47/ Passport-75T DrM.000PS. Chopper vibrating 75T-DRM .

/48/ Act of performed work of weighing from 01/12/08 of 31502.25 tons of carbonaceous rocks

/49/ Act of admission and transmission of performed work from 01/12/08 for 2862936.80 UAH. and calculation of the costs for the act of performed works

/50/ Sales invoice# 49 from 03/12/08, for 31,502.25 tons of Carbonaceous rocks

/51/ Certificate # 58 on the quality of coal from 31/11/2008

/52/ Act of performed work of weighing from 01/10/10 of 35344.95 tons of carbonaceous rocks

/53/ Act of admission and transmission of performed work from 01/10/10 for 3222710.74 UAH. and calculation of the costs for the act of performed works

/54/ Sales invoice # 99 from 06/10/10 for 35344.95 tons of carbonaceous rocks

/55/ Certificate # 89 on the quality of coal from 31/09/2010

/56/ Act of performed work of weighing from 01/04/12 of 38759.35 tons of carbonaceous rocks

/57/ Act of admission and transmission of performed work from 01/04/12 for 4219767.15 UAH. and calculation of the costs for the act of performed works

/58/ Sales invoice# 37 from 05/04/12, for 38759.35 tons of Carbonaceous rocks

/59/ Certificate # 51 on the quality of coal from 31/03/2012

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/ Ivanenko Gennadiy Volodymyrovych - SIA "Vidzeme Eko" JI Project Manager

/2/ Tymofeev Sergiy Petrovych - SIA "Vidzeme Eko" JI Consultant

/3/ Stah Yuri Mykhailovych - SIA "Vidzeme Eko" JI Consultant

/4/ Berestova Irina Ivanivna - PE "ICC Ukrhimuglekachestvo" Head of Laboratory

/5/ Yuhimenko Myhailo Sergiyovich - PE "ARDS-SERVIS " manager of industrial department

/6/ Koval Anatoliy Volodymyrovych - SIA "ICC"Tehnoprominvest" Production Manager

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APPENDIX A: DETERMINATION PROTOCOL

DETERMINATION PROTOCOL

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	Waste heap dismantling by PE "Ards-Servis" with the aim of decreasing greenhouse gases emissions into the atmosphere	OK	OK
-	Is the sectoral scope to which the project pertains presented?	The sectoral scope is 8. Mining/mineral production	OK	OK
-	Is the current version number of the document presented?	The current version of the PDD is 1.0	OK	OK
-	Is the date when the document was completed presented?	The PDD version 1.0 was completed 22/06/2012	OK	OK
Description of the project				
-	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description)?	*Situation existing before the project implementation* *Proposed project* provides complete dismantling of the dump at the "Shakhtarska – Glyboka" mine with further reclamation of the area by restoring its fertile layer. During dismantling of the dump, the rocks will be divided into fractions, which will be used for blending with steam coal and subsequently supplied to heat power plants and boiler houses for burning as fuel. After sorting, the large fractions will be used for building	CAR01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		and repairing of roads. As the result, rock mass of the dump will be fully utilized, and the received coal will replace coal, which otherwise would have had to be mined. As the result of the project, the opportunity of self-ignition of heap will be eliminated *CAR01* Please provide in the section A.2 description of proposed project baseline scenario		
-	Is the history of the project (incl. its JI component) briefly summarized?	*CAR02* Please provide in the section A of the PDD project timeline, including its JI component	CAR02	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	The PDD indicates Ukraine as Host Party, Republic Latvia as Second Party involved,	OK	OK
-	Is the data of the project participants presented in tabular format?	The data of the project participants is presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	The contact information on project participants are provided in the Annex 1	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	*CAR03* Please indicate if the Party involved is a host Party	CAR03	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Donetsk	OK	OK
-	City/Town/Community etc.	Shakhtarsk	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section	*CAR04* Please correctly indicate geographical coordinates of dismantled waste heap	CAR04	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	should not exceed one page)			
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?	The description of project technologies and technical data for project equipment are provided in the section A.4.2	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)	The project activities is aimed at extraction of coal from the dump, which is in lawful possession by PE"ARDS-SERVIS", in order to prevent emissions into the atmosphere when spontaneous burning of dumps occur and to receiving more quantity of coal. The proposed project is aimed at reducing anthropogenic emissions. Emission reductions created by: - Elimination of greenhouse gases sources associated with burning waste heaps, by extracting coal from the rock dumps; - Reduction of uncontrolled methane emissions due to replacement of coal that would have been extracted through mining; - Reduction of electricity consumption at waste heap dismantling in comparison to electricity consumption at coal mine.	OK	OK
-	Is it provided the estimation of emission	The estimation of emission reductions is provided in	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reductions over the crediting period?	the section A.4.3.1, and for period 01/10/2008-31/12/2012 consist 1 863 483 tonnes of CO2 equivalent		
-	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 are presented in tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	*CAR05* Please note length of the crediting period in the section A.4.3.1 in format YY years MM months (ZZ month)	CAR05	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	The estimated annual and average reductions for the chosen credit period is provided in tCO2e	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	The project obtained Letter of Endorsement #1599/23/7 dated 22/06/2012 from State Environmental Investment Agency of Ukraine. The written approvals from Ukraine and Latvia DFP will be obtained after determination process finishing *CAR16* Please provide written approval from Host Party.	CAR16	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	See section 19 of this protocol	Pending	Pending
19	Has the DFP of the host Party issued a written project approval?	See section 19 of this protocol	Pending	Pending
20	Are all the written project approvals by	See section 19 of this protocol	Pending	Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	Parties involved unconditional?			
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 of this protocol and section 4.2 of the Determination Report	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	*CAR06* Please indicate in the head of section B.1 of the PDD that JI specific approach was used for baseline identification	CAR06	OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	The baseline for this JI project was established in accordance with Appendix B, Guidelines for Implementation and paragraphs 23 - 29 "Guidance on Criteria For Baseline Setting And Monitoring" Version 03. To establish a baseline, project participants have chosen the methodology applied in the project "Dismantling of waste heap at former mine "ROZSYPNYANSKA-1" special approach which JI was	CAR07	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		determined and has already passed the stage of verification. Its use is described in full and transparent manner. *CAR07* Please provide correct references on articles of "Guidance on Criteria For Baseline Setting And Monitoring" Version 03. used for baseline establishing		
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard	There is ground that the baseline was established by calculation and description of possible future scenarios based on conservative assumptions and choosing the most likely scenario in the PDD. Plausible future scenarios are listed and described on the basis of conservative assumptions and selecting the most plausible one in the context of this project. All scenarios, except - continuation of existing situation, face prohibitive barriers. Therefore, continuation of existing situation is the most plausible future scenario and is the baseline scenario. Analysis of the barriers is given in section B.1. of PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?			
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?	Project participants have applied the JI specific approach to identify the baseline	OK	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	Yes. The explanation and references of carbon emission factor is indicated in Section B of the PDD. *CL01* Section B of the PDD indicates that standard values of carbon emission factors approved by SEIA were used for emissions estimates. Please clarify class of energy consumers	CL01	OK
Approved CDM methodology approach only_Not applicable				
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario	To demonstrate additionality, project participants have used the approach in accordance with paragraph 44 (b) Annex 1 "Guidelines for JISC on the criteria for baseline setting and monitoring" version 03, which is to provide transparent information that can track and has already received a positive determination by an accredited independent entity. This approach is fully described in Section B.2. PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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".			
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?	d) Both projects propose **same GHG mitigation measure:** The proposed GHG mitigation measure under both projects is coal extraction from the mine's waste heaps. This will prevent greenhouse gas emissions into the atmosphere during combustion of the heaps and will contribute an additional amount of coal, without the need for mining. e) Both projects are implemented within the **same country**: The proposed project and identified comparable project are both located in Ukraine, Donetsk Region	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		f) **Scale.** The difference between the proposed project and the other project(s) is less than 50 per cent in terms of the projects output (i.e. power output, capacity increase, etc.) or service provided; and The projects envisage production of the same product (rock mass sorting), average rock mass outputs for both projects differ by merely 25%. Criteria is satisfied. g) There were no significant changes in **regulatory framework** between the starting dates of two projects. Criteria is satisfied		
29 (c)	Is the additionality demonstrated appropriately as a result?	*CAR08* Please provide list of compared parameters in the section B.2 step 2 in accordance with paragraph 12 of "Guidelines for JISC on the criteria for baseline setting and monitoring" version 03	CAR08	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	See section 28 of this protocol	OK	OK
Approved CDM methodology approach only_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?	Sources of GHG emissions that is under the control of project participants are clearly defined in the PDD. The boundaries of the project include dumps of mine 'Shakhtarsk-Glyboka" dismantling in the project and equipment installed within the project activity boundary (sorting complex). Emission that is outside of the	CAR09	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(ii) Reasonably attributable to the project? (iii) Significant?	project and related to the project is referred to the leakages. Table 16 in Section B.3. "Sources of emissions in the baseline and project scenario" summarizes the emissions that are considered as significant. *CAR09* Please note emission from diesel fuel consumption in the project emissions in the table 21 section B.3		
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	The project boundary is defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD by using a figure or flow chart	OK	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	The inclusion of gases and sources are explicitly stated and the exclusion of sources related to the project are appropriately justified	OK	OK
Approved CDM methodology approach only_Not applicable				
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	The PDD states the starting date 01/09/2008, the date when installation of project equipment begun. *CAR10* Please add reference or note in the section C.1 name of the document confirmed project equipment	CAR10	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		installation beginning		
34 (a)	Is the starting date after the beginning of 2000?	The project was started 01/09/2008, which 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 PDD indicates expected operational lifetime of the project in 4 years and 3 months (51 months)	OK	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is indicated in 4 years and 3 months (51 months)	OK	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	*CAR11* Please indicate in the section C.3 that the starting date of the crediting period is the date when first emission reductions were generated by the project	CAR11	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 crediting period starts after the 2008 beginning	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?	The crediting period doesn't extends beyond 2012 year	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used?	The PDD explicitly indicates that JI specific approach was used for monitoring plan establishing	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− JI specific approach − Approved CDM methodology approach			
JI specific approach only				
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	The monitoring plan describes all relevant factors and key characteristics that will be monitored. The period of which they will be monitored is established. All decisive factors for the control and reporting of project performance are indicated	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 specifies all indicators, constants and variables used that are reliable, valid and provides transparent picture of the emission reductions	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? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	Next indicators was used as default values: - carbon emission factor for electricity consumption obtained from NIR - The average ash content and moisture of coal produced in Donetsk region of Ukraine - Probability of waste heap burning - Hydrogen content factor of coal The references on statistical analysis data are provided The default values are presented in transparent manner	OK	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the	Selection and justification of default values use is provided in appropriately way	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitoring plan clearly indicate how the values are to be selected and justified?			
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	The monitoring plan, accurately and clearly differs data and parameters that must be monitored during the crediting period. Data to be collected for monitoring of project emissions, project participants described in Section D.1.1.1. PDD.	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	*CAR12* Please provide in the section D descriptions of procedures to be followed if expected data are unavailable	CAR12	OK
36 (b) (iv)	Are International System Unit (SI units) used?	Some SI units are used	OK	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	There are no any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring	OK	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	The use of parameters, coefficients, variables is consistent between the sections B and D	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 standard variables designations is in accordance with appendix B of "Guidance on criteria for baseline setting and monitoring"	OK	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish:	The monitoring plan explicitly states: (i) Data and parameters that are not monitored	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(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?	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		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The monitoring plan describes the methods employed for data monitoring (direct measuring of consumed electricity and diesel fuel, value of produced coal, etc) with indication of its frequency and methods of their 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?	Yes, the monitoring plan elaborates all algorithms and formulae used for the calculations of baseline emissions, project emissions and leakages in appropriately way	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the proposed formulae are explained	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	*CAR13* Please correct formulae 14, and check conversion ratio from KJ/kg to TJ/kt in this formula on the page 46	CAR13	OK
36 (f) (iii)	Are all equations numbered?	All equations in the sections B and D 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 proposed algorithms are justified	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Not included	OK	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	The consistency between the baseline scenario elaboration and procedure for baseline emissions calculations are ensured	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	All algorithms and formulae that are not self-evident are explained	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	*CL02* Please clarify in the section D that proposed monitoring procedures are consistent with standard technical procedures in the Ukraine mining sector	CL02	OK
36 (f) (vii)	Are references provided as necessary?	The valid and work references are provided	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	The implicit and explicit key assumptions are explained in a transparent manner	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such	Section D of the PDD contains information on significant uncertainty associated with project parameters, and how such uncertainty is to be	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	uncertainty is to be addressed?	addressed		
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	Section D of the PDD contains information on significant uncertainty associated with project parameters, and how such uncertainty is to be addressed	OK	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	The monitoring plan identify next standards applied to the project - National Inventory Report of Ukraine 1990-2009 - Orders of the NEIA ##43, 62, 63, 75 - Guide of quality, volume of coal production and enrichment products in 2008-2010, Ministry of Coal Industry of Ukraine, State Committee of Ukraine - State Standard 4083-2002. Coal and anthracite for powdered combustion in thermal power plants The references on detailed descriptions of proposed standards are added in the PDD	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	The monitoring plan used a group of statistical data, used in conservative manner. Fuel and energy resources of Ukraine, Statistical Yearbook, issued by State Statistics Committee of Ukraine, and Report on the fire risk of Donetsk Region's waste heaps, Scientific Research Institute "Respirator" were used for project calculations	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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 monitoring plan presents the quality assurance and quality control procedures is provided in the section D.2 of the PDD. Data on measuring devices are provided in the section D.1.	OK	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The transparent scheme of monitoring data flow with indication of responsibilities for monitoring parameters are indicated in Figure 9 - Monitoring flowchart in the section D.3 of the PDD	OK	OK
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?	The monitoring plan is in line with monitoring plan included in the positively determined by TUV-Rhineland project "Dismantling of waste heap at former mine "ROZSYPNYANSKA-1""	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?	The monitoring plan provides complete compilation of the data collected in tabular form. See sections D.1.1.3, D.1.3.1 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	The monitoring plan indicates that the data monitoring and required for ERUs calculation will be kept two years after the last ERUs transfer. For more	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	transfer of ERUs for the project?	information see please section D.1 p.37 of the PDD.		
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 are not references on approved CDM methodologies in the section D	OK	OK
Approved CDM methodology approach only_Not applicable				
Applicable to both JI specific approach and approved CDM methodology approach				
39	If the monitoring plan indicates overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and	The monitoring plan doesn't indicate overlapping monitoring periods	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined project components, justify its need and state how the conditions mentioned in (a)-(c) are met?			
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?	*CAR14* Please transmit calculations of leakages in baseline emissions, because project description of leakages conflict with leakages definition from "Glossary of JI/CDM terms" version 03	CAR14	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	The PDD provides a procedure for ex-ante estimates of leakages for 2012 year	OK	OK
Approved CDM methodology approach only_Not applicable				
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	The PDD indicates that assessment of emissions in the baseline scenario and the project scenario was chosen	OK	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the	The PDD provides ex ante estimates of: (a) Emissions for the project scenario within the project boundary, which are 35 596 tonnes of	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	CO2 eq. for period 01/10/2008-31/12/2012 (b) Leakages, which are -451 431 tonnes of CO2 eq. for period 01/10/2008-31/12/2012 (c) Emissions or net removals for the baseline scenario 1 447 379 tonnes of CO2 eq. for period 01/10/2008-31/12/2012 (d) Emission reductions adjusted by leakage 1 863 483 tonnes of CO2 eq. for period 01/10/2008-31/12/2012		
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	See section 42 of this protocol	OK	OK
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently	The estimates in 43 are given: - on a yearly basis - from the 01/10/2008 to 31/12/2012 - on the source-by-source/sink-by-sink basis - for CO2 - in tonnes of CO2 equivalent, using global warming potential of methane. The formulae used for calculating the estimates in 43 are consistent throughout the PDD. Key factors influencing the baseline emissions or removals and the activity level of the project and the	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of	emissions or net removals as well as risks associated with the project are taken into account for estimates calculating in 43 The data sources used for calculating the estimates are clearly identified, reliable and transparent. The emission factors used for calculations were selected by carefully balancing accuracy and reasonableness. The choice of emission factors volume was justified. The estimations in 43 are based on conservative assumptions and the most plausible scenarios in a transparent manner. The estimates in 43 are consistent throughout the PDD The annual average of estimated emission reductions is calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	The PDD provides illustrative ex-ante calculations of emission reductions	OK	OK
Approved CDM methodology approach only_Not applicable				
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	The PDD contains analysis of the environmental impacts of the project in accordance with actual Ukraine legislation.	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	*CAR15* Please note in the section F.1 documents obtained by PE "ARDS-Service" for project activity conducting	CAR15	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	The Host Party does not put forward the requirement to consult with stakeholders to JI projects. Stakeholders' comments will be collected during the publication of the project documents on the Internet during the determination process	OK	OK
Determination regarding small-scale projects (additional elements for assessment) _Not applicable				
Applicable to bundled JI SSC projects only_Not applicable				
Applicable to all JI SSC projects_Not applicable				
Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment) _Not applicable				
Determination regarding programmes of activities (additional/alternative elements for assessment) _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 provide in the section A.2 description of proposed project baseline scenario	-	The description was given: *In the baseline scenario* assumed that the common practice will be continued – heap can be spontaneously ignited with a certain probability, and the process of burning will continue till all coal, contained there, will be burned. The process of combustion is accompanied by release the carbon dioxide into atmosphere.	The issue is closed
CAR02 Please provide in the section A of the PDD project timeline, including its JI component	-	Brief history of the project: The project was initiated in August 2008. Installation of sorting equipment begins in August 18, 2008. Commissioning and the start of the sorting complex is October 1, 2008. An important component of the project is its second phase – complex reclamation of the area by restoring its fertile layer and full restoration of natural ecological community. These works are planned to be completed in 2015.	The issue is closed
CAR03 Please indicate if the Party involved is a host Party	-	Table 1 shows, that Ukraine is a host party	The issue is closed

CAR04 Please correctly indicate geographical coordinates of dismantled waste heap	-	Correct coordinates of the dump are specified: Location of project: 48° 05' 21.88" N. Lt. and 38°26' 46.85" E. Lg	The issue is closed
CAR05 Please note length of the crediting period in the section A.4.3.1 in format YY years MM months (ZZ month)	-	The duration of of the creditting period is specified in section A.4.3.1: duration of the crediting period - four years three months (51 month).	The issue is closed
CAR06 Please indicate in the head of section B.1 of the PDD that JI specific approach was used for baseline identification	22	Specified: JI specific approach was used to determine the baseline.	The issue is closed
CAR07 Please provide correct references on articles of "Guidance on Criteria For Baseline Setting And Monitoring" Version 03. used for baseline establishing	22	Correct name was given: "Guidance on Criteria for Baseline Setting and Monitoring version 03"	The issue is closed
CAR08 Please provide list of compared parameters in the section B.2 step 2 in accordance with paragraph 12 of "Guidelines for JISC on the criteria for baseline setting and monitoring" version 03	29(c)	It is added: 5) During the period between the beginning of the proposed and the compared projects changes in legislation that could affect the establishment of the baseline didn't take place.	The issue is closed
CAR09 Please note emission from diesel fuel consumption in the project emissions in the table 21 section B.3	32(a)	It is specified: Consumption of fossil fuel(diesel fuel) due to extracting coal from dumps	The issue is closed
CAR10 Please add reference or note in the section C.1 name of the document confirmed project equipment installation beginning	34(a)	It is given in Section C.1: according to the order of installation works implementation #19-08/08 from 21/08/2008).	The issue is closed

CAR11 Please indicate in the section C.3 that the starting date of the crediting period is the date when first emission reductions were generated by the project	34(c)	It is given in Section C.3: On 01/10/2008 begins generation of first emission reductions in the project.	The issue is closed
CAR12 Please provide in the section D descriptions of procedures to be followed if expected data are unavailable	36 (b) (iii)	It is added in Section D.2. - If the expected data are unavailable or lost, the calculations of emissions will be carried out by the most conservative option.	The issue is closed
CAR13 Please correct formulae 14, and check conversion ratio from KJ/kg to TJ/kt in this formula on the page 46	36 (f) (ii)	Formula is corrected (English version had a spelling mistake), the coefficient is verified.	The issue is closed
CAR14 Please transmit calculations of leakages in baseline emissions, because project description of leakages conflict with leakages definition from "Glossary of JI/CDM terms" version 03	40(a)	In Section B.1.was made a reference to the determined project, where a similar calculation of emissions is given - "Dismantling of waste heap at former mine "ROZSYPNYANSKA-1" (Project ITL UA1000317	The issue is closed
CAR15 Please note in the section F.1 documents obtained by PE "ARDS-Service" for project activity conducting	48 (b)	It is given in Section F.1: The full scope EIA in accordance with the Ukrainian legislation has been conducted for the proposed project in 2008.	The issue is closed
CAR16 Please provide written approval from Host Party.	19	The project obtained Letter of Endorsement #1599/23/7 dated 22/06/2012 from State Environmental Investment Agency of Ukraine. The written approvals from Ukraine and Latvia DFP will be obtained after determination process finishing.	Pending

CL01 Section B of the PDD indicates that standard values of carbon emission factors approved by SEIA were used for emissions estimates. Please clarify class of energy consumers	27	PE "ARDS-SERVIS" is an enterprise with the average volume of electricity consumption to 150 million kilowatt-hour. on the technological needs of production, regardless of the degree of voltage at the point of sale of electric energy by electricity supply organization to the cosumer. Thus the enterprise relates to consumer grade 1.	The issue is closed
CL02 Please clarify in the section D that proposed monitoring procedures are consistent with standard technical procedures in the Ukraine mining sector	36 (f) (vii)	It is explained in Section D – The proposed monitoring procedures coincide with standard procedures in projects that were determined: SIA "Antracit", SIA "Monolit", "Temp" Ltd and others. The projects developer is Global Carbon BV	The issue is closed