



**BUREAU
VERITAS**

VERIFICATION REPORT “SKHIDENERGO” LTD.

VERIFICATION OF THE **RECONSTRUCTION OF THE UNITS AT THE STRUCTURE UNIT “KURAKHOVSKAYA TPP” OF THE “SKHIDENERGO” LTD.** INITIAL AND 1ST PERIODIC (2006-2007, 2008-2009)

REPORT No. UKRAINE-VER/0149/2010

REVISION No. 02

BUREAU VERITAS CERTIFICATION



VERIFICATION REPORT

Date of first issue: 18/10/2010	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Skhidenergo ltd.	Client ref.: Yuriy Magera
<p>Summary:</p> <p>Bureau Veritas Certification has made the initial and 1st periodic verification of the «Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" Ltd.», JI Registration Reference Number UA1000205, project of «Skhidenergo» Ltd. located in Kurakhovo City, and applying the JI specific approach, 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.</p> <p>The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, 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 verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.</p> <p>The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CR, CAR and FAR), presented in Appendix A.</p> <p>In summary, Bureau Veritas Certification confirms that the project is implemented according to determined and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated accurately and without material errors, omissions, or misstatements, the AAUs totalize 287 672 tons of CO₂eq for the monitoring period 01/01/2006-31/12/2007 (01/01/2006-31/01/2006: 111 868 t CO₂ eq.; 01/01/2007-31/01/2007: 175 804 t CO₂ eq.) and ERUs issued totalize 304 974 tons of CO₂eq for the monitoring period 01/01/2008-31/12/2009 (01/01/2008-31/01/2008: 131 990 t CO₂ eq.; 01/01/2009-31/01/2009: 172 894 t CO₂ eq.).</p> <p>Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.</p>	

Report No.: UKRAINE-ver/0149/2010	Subject Group: JI	
Project title: «Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" Ltd.»		
Work carried out by: Team Leader : Oleg Skoblyk		
Work reviewed by: Ivan Sokolov		
Work approved by: Ivan Sokolov		
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1 INTRODUCTION

Skhidenergo Ltd. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project «Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” Ltd.» (hereafter called “the project”) at Kurakhovo, Ukraine, UNFCCC JI Reference Number UA1000205.

This report summarizes the findings of the verification 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

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

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 verification 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 verification 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 monitoring towards reductions in the GHG emissions.

1.3 Verification Team

The verification team consists of the following personnel:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer



2 METHODOLOGY

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

In order to ensure transparency, a verification protocol was customized for the project, according to the version 01.1 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 verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

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

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

2.1 Review of Documents

The Monitoring Report (MR) submitted by ELTA JSC and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report (2006-2007) version(s) 1.0 dated 25/08/2010, Monitoring Report (2008-2009) version(s) 1.2 dated 25/12/2010 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 01/09/2010 Bureau Veritas Certification performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Skhidenergo ltd. and ELTA JSC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

Interviewed organization	Interview topics
Skhidenergo ltd.	Organizational structure. Responsibilities and authorities. Training of personnel. Quality management procedures and technology. Implementation of equipment (records). Metering equipment control. Metering record keeping system, database.
Consultant: ELTA JSC	Baseline methodology. Monitoring plan. Monitoring report. Deviations from PDD.

2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification 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 GHG emission reduction calculation.

If the Verification Team, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should 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 that is not in accordance with the monitoring plan;
- (b) Clarification request (CL), requesting the project participants to provide additional information for the AIE to assess compliance with the monitoring plan;
- (c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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



3 INITIAL VERIFICATION FINDINGS

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

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

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 4 Corrective Action Requests, 2 Clarification requests and 2 Forward action requests.

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

3.1 Project approval by Parties involved (90-91)

Written project approval by Ukraine and the United Kingdom of Great Britain and Northern Ireland involved in the JI Project have been issued by the DFPs of those Parties when submitting the first verification report to the Designated Focal Point of Ukraine for registration. (Both LoAs are listed in the Category 1 Documents of the Reference section of this report).

The abovementioned written approval is unconditional.

3.2 Project implementation (92-93)

Kurakhovskaya TPP exploited by energy generating company Skhidenergo ltd. Installed power capacity of the Kurakhovskaya TPP is 1460 MW. All energy equipment was installed in the 1970's. The list of installed equipment:

- 7 boilers Ttp-109 (one boiler per unit), produced by the Taganrog boiler factory. Steam capacity 640 t/hour, steam pressure 130 kg/sm², temperature of the overheated steam is 545 °C.
- 6 turbines K-210-130, produced by the "Leningrad metal works", capacity 200 MW. Installed power capacity is 200 MW.
- 1 turbine K-200-130-3, produced by the "Leningrad metal works", capacity 210 MW. Installed power capacity is 210 MW.
- 6 power generators TГB-200M, produced by the "Kharkov SPC Electrotyazhmash" with the capacity of 210 MW.
- 1 power generator TГB-200, produced by the "Kharkov SPC Electrotyazhmash" with the capacity of 200 MW.

Electricity consumption for own needs 9.8% (2007).

Main (reserve) fuel: coal, (heavy fuel oil/natural gas).

The overall efficiency of the TPP was 30.83% in 2007.

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Project foresees modernization of the main and the auxiliary equipment of the all energy-generating units of the TPP according to the following schedule.

All Units Servicing and Preparations for the Reconstruction	2004 - 2016
Unit №3	2015-2016
Unit №4	2013-2014
Unit №5	2007-2008
Unit №6	2011-2012
Unit №7	2009-2010
Unit №8	2010-2011
Unit №9	2012-2013

It includes replacement of outdated turbine equipment, control, automatic systems, and electro-technical system, modernization of the boiler equipment, electric separation system, cooling system, optimisation of the working regimes, the fuel preparation, servicing of the equipment, etc.

According to the Project Schedule the preparation measures for the TPP Units' Reconstructions were implemented on the TPP during 2006 - 2007. These measures included:

In 2006:

- the pulverized-coal conduit and the burner were changed at the boiler unit of the Unit #9;
- 2 slip rings of the electric generator rotor were changed at the Unit #9;
- the Heating Surfaces of the Boiler Units of the energy generating units ## 3 – 9 were cleaned;
- the system of the ball-cleaning of the turbine condenser at the energy generating unit #5 was mounted;
- the air inflows to the vacuum system of the turbines at the energy generating units ## 3 – 9 were eliminated;
- the air inflows to the boiler units' tracts at the energy generating units ## 3 – 9 were eliminated;
- the turbine condenser pipes were cleaned;
- the acid cleaning of the turbine condenser pipes was implemented at the Unit #5;
- the tubular air heater cubes were changed at the boiler units of the energy generating units #5 (lower cubes) and #9 (higher cubes);
- the fireplace chamber yokes at the high pressure cylinder and the mid-pressure cylinder of the turbine of the energy generating unit #9 were changed;
- the high pressure cylinder and the mid-pressure cylinder maintenance was made at the energy generating unit #5;



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- the guide ring of the stage of the low pressure cylinder was changed at the energy generating units #9 and #5;
- the water economizer of the boiler unit at the energy generating unit #9 was changed;
- the energy radiators were mounted at the boiler unit of the energy generating unit #9;
- the gas-airways at the inflow and at the return of the smoke exhausters and the blow fans of the energy generating unit #9 were changed;
- the maintenance of the electric filter casing of the boiler unit of the energy generating unit #9 was provided;
- the inner casings of the condensate electric pumps at the of energy generating unit #9 were changed;
- the inner casing of the feed-pump at the energy generating unit #9 was changed;
- the mid- and low-pressure cylinder settings at the turbine unit of the Unit #6 were overhauled and repaired;
- turbine blades at the stages #13, 14 and 15 of the generating Unit #6 were overhauled and repaired.

In 2007:

- the gears and reducers of the ShBM-3 "A,B" were overhauled and changed at the Unit #3;
- the boiler shutter at the Unit#3 boiler was changed;
- the high-pressure fittings and valves were changed at the boiler unit of the generating Unit # 3;
- the furnace sheeting of the boiler unit at the Unit #3 was changed;
- the turbine diaphragm was changed at the Unit #3;
- the steam supply scheme was mounted at the front firming of the high- and mid-pressure cylinders of the energy Unit #3;
- the emergency oil supply system for the turbine bearings was mounted at the energy Unit #3;
- the rotors of the turbine were balanced at the Unit #3;
- the electrofilter was reconstructed at the Unit #3;
- the acid cleaning of the A and B condensers of the turbine at the Unit #8 was implemented;
- the mill gears at the boiler unit of the Unit #5 were changed;
- the oil seals of the generator shaft of the Unit #8 were changed;
- the condenser pipelines cleaning at the units ## 3 - 9, which leads to the turbine efficiency increase;
- the acid cleaning of the pipelines of the condenser at the units ## 6 and 8;
- the efficiency increase of the feed electric pump #3 B by the change of the flow part;
- the air inflows to the gas-air flow duct system of the boiler at the energy generating unit # 3 were eliminated;
- the guide blades and the diaphragms of the turbine mid-pressure cylinder at the unit #3 were changed;



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- the inlet and outlet valves of the high-pressure economizer of the turbine at the unit #3 were changed;
- the efficiency of the mid-pressure cylinder setting at the Unit #3 was raised by the change of the wicket gate and the diaphragms of the stages ## 14 and 15;
- the efficiency of the regeneration system of the turbine at the Unit #3 was raised by means of the change of the admission and the exhaust valves of the high-pressure heater;
- the heating surfaces of the boiler units was cleaned to increase the efficiency (units ## 3 - 9);
- the air inflows to the vacuum system of the turbines at the energy generating units ## 3 – 9 were eliminated;
- the air inflows to the boiler units' tracts at the energy generating units ## 3 – 9 were eliminated;
- the inner cases of the condenser pumps ## 3B and 3V were changed;
- the inner cases of the feed electric pump # 8A was changed;
- the heating section PSV-200 of the turbine at the Unit #8 was changed.

According to the Project Schedule in 2008 – 2009 there were reconstructions of the energy generating Units ## 5 and 7 implemented on the TPP. Within this project the following packages of measures will be undertaken on the each unit:

- the preparations for the rehabilitation, including repairs, servicing, optimisation of the regimes and the fuel preparation;
- the rehabilitation of the turbine equipment to restore its initial efficiency and modernize its command & control system;
- the improvement of the designed parameters of the turbine equipment;
- the rehabilitation (reconstruction) of the regulation system;
- the rehabilitation (reconstruction) of the boiler;
- the boiler binding reconstruction to use natural gas as reserve fuel instead of the heavy fuel oil;
- the reconstruction (change) of the control system of the of the Unit;
- the reconstruction of the generator and the cooling system;
- the rehabilitation (reconstruction) of the electric filters with the change of the electric and control systems;
- the rehabilitation of the feed-pump;
- the rehabilitation (reconstruction) of the electric equipment of the Unit (including unit transformer).

The detailed description of the rehabilitation:

A. Turbine equipment

1. Steam turbine

- Low pressure cylinder modernization with the rotor change;
- Change of the end seals;
- Change of the diaphragms, end and diaphragm seals;
- Casings change;
- Overhaul and change of bearings;
- Feed and exhaust pipe retrofit;



- Retrofit of the LPC support;
 - Generator and Middle pressure cylinder half-couplings reconstruction;
 - Rotor hydrolifting system installation.
2. Steam pipelines
- overhaul and repairs.
3. Pumping equipment
- change of the inner casing of the feed pump;
 - overhaul and repair of all pumping equipment.
4. Fittings
- overhaul and in case of need – repair and change of the fittings.
5. Insulation
- overhaul and rehabilitation of the high and middle pressure equipment insulation;
 - repair of the feed-water pipeline insulation.
6. Control system
- equipping of the turbine with the electronic control, monitor and regulation system.
7. Electric filters
- change of the electrodes;
 - change of the gas distribution gates;
 - change of the filter control system;
 - overhaul and repair of the filter system.
- B. Boiler equipment
- repair of the boiler unit and supporting equipment;
 - replacement of the metal housing;
 - repair of the steam pipelines;
 - replacement of the coiled pipes;
 - total replacement of the water-wall tubes and water economizer;
 - repair of the separation equipment;
 - overhaul and repair of the all pipelines and steam pipelines;
 - cleaning and repair of the tubular air heater;
 - overhaul and replacement of the winding and thermal insulation;
 - repair and replacement of fittings.
- C. Electric generator and electric equipment
- replacement of the stator winding;
 - modernization of the cooling system of the generator with the replacement of the gas condensers;
 - repair of the transformer.



4 VERIFICATION CONCLUSIONS

4.1 Compliance of the monitoring plan with the monitoring methodology (94-98)

The monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

For calculating the emission reductions or enhancements of net removals, key factors, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions or enhancements of net removals is based on conservative assumptions and the most plausible scenarios in a transparent manner.

4.2 Revision of monitoring plan (99-100)

Not applicable.

4.3 Data management (101)

The project is implemented on the TPP in accordance with technical standards of Ukraine. All the equipment has monitoring and security equipment according to the national energy sector requirements. All the data, needed for the monitoring is collected in the production department of the TPP and accumulated in a specific standard table called "3-tech Form" in accordance with the GKD-34.09.103-96 "The calculation of the reported technical and economical parameters of the power plant concerning the thermal efficiency of the equipment. Methodological tool", approved by the Ministry of Energy and Electrification of Ukraine in 1996. The main parameters of the Station are measured by the meters and shown in graphs in a real time. The data of the fuel consumption is measured and collected for the whole TPP and the energy produced is measured per each unit separately. This allows to measure the average emission for all the TPP and to see the influence of the Project activity while some of the units are out of operation.



All the starts and stops of each Unit are monitored and also shown in the technical documentation alongside with the working time hours for each Unit of the TPP.

That means, that even when some unit is out of the operation, all the measures continue to be collected and the overall project emission is still being calculated. All the calibrations and checks of the equipment are also documented.

The electricity supply is being monitored by the Electricity Department of the TPP at the central electric panel of the TPP and sent to the Technical Production Department (TPD).

The coal consumption is being monitored daily by the Fuel-Transport Department. The reports are also sent to the TPD.

The heavy fuel oil consumption is being monitored daily by the Boiler-Turbine Department of the TPP. The reports are sent to the TPD.

The natural gas consumption is being monitored by the Gas Distribution System. The daily reports are also sent to the TPD.

The data of the Net Calorific Value of the fuel is being provided to the TPD by the certified laboratory of the TPP daily.

The TPD collects all the data and calculate the Specific Fuel Rate daily. After that, the data is being summarized in the monthly reports and in the annual report called "3-tech" Form.

All the measures are being sent to the project manager of the "ELTA" company, who collects the data, calculates the emission, emission reductions and creates a monitoring report.

All the data shall be stored in the paper and electronic form at the TPP and in the data base of the "ELTA" company during all lifetime of the project.

The function of the monitoring equipment, including its calibration status, is in order.



The evidence and records used for the monitoring are maintained in a traceable manner.

The data collection and management system for the project is in accordance with the monitoring plan.

4.4 Verification regarding programmes of activities (102-110)

Not applicable.

5 VERIFICATION OPINION

Bureau Veritas Certification has performed initial and 1st periodic verification of the « Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” Ltd.” Project in Ukraine, which applies JI specific approach. The verification 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 verification 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 verification report and opinion.

The management of Skhidenergo Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring and Verification Plan indicated in the final PDD version 2.2.1. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification confirms that the project is implemented according to determined and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project’s GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on



the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

Reporting period: From 01/01/2006 to 31/12/2006

Baseline emissions : 6 463 244 t CO₂ equivalents.
Project emissions : 6 351 376 t CO₂ equivalents.
Emission Reductions : 111 868 t CO₂ equivalents.

Reporting period: From 01/01/2007 to 31/12/2007

Baseline emissions : 7 056 903 t CO₂ equivalents.
Project emissions : 6 881 099 t CO₂ equivalents.
Emission Reductions : 175 804 t CO₂ equivalents.

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

Baseline emissions : 6 472 443 t CO₂ equivalents.
Project emissions : 6 340 453 t CO₂ equivalents.
Emission Reductions : 131 990 t CO₂ equivalents.

Reporting period: From 01/01/2009 to 31/12/2009

Baseline emissions : 5 168 902t CO₂ equivalents.
Project emissions : 4 996 008 t CO₂ equivalents.
Emission Reductions : 172 894 t CO₂ equivalents.



6 REFERENCES

Category 1 Documents:

Documents provided by Type the name of the company that relate directly to the GHG components of the project.

- /1/ Monitoring Report for period 01/01/2006-31/12/2007 version 1.0, dated 25/08/2010
- /2/ Monitoring Report for period 01/01/2006-31/12/2007 version 1.2, dated 25/12/2010
- /3/ Monitoring Report for period 01/01/2008-31/12/2009 version 1.0, dated 25/08/2010
- /4/ Monitoring Report for period 01/01/2008-31/12/2009 version 1.2, dated 25/12/2010
- /5/ Project Design Document, version 2.2.1 dated 12/02/2010
- /6/ A Letter of Approval for Joint Implementation Project "Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" Ltd." dated 03/12/2010 issued by Department of Energy and Climate Change of United Kingdom of Great Britain and Northern Ireland
- /7/ A Letter of Approval for Joint Implementation Project "Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" Ltd." No.753/23/7 dated 09/06/2010 issued by National Environmental Investment Agency of Ukraine
- /8/ Emission reductions Calculation Excel Spreadsheet "monitoring Ku.xls"

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

1. Annex of the repair journal #1. Capital repair of boiler unit #9. 2006
2. Annex of the repair journal #1. Mid-life repair of boiler unit #5. 2006
3. Annex of the repair journal #1. Turbine #9. 2006
4. Annex of the repair journal #2. Capital repair of boiler unit #9. 2006
5. Annex of the repair journal #2. Mid-life repair of boiler unit #5. 2006
6. Annex of the repair journal #2. Turbine #9. 2006
7. Annex of the repair journal #3. Capital repair of boiler unit #9. 2006
8. Annex of the repair journal #3. Turbine #9. 2006
9. Annex of the repair journal #4. Capital repair of boiler unit #9. 2006
10. Calculation of reporting technical and economic indices of the thermal efficiency of power equipment. Guidance. GKD 34.09.103-96
11. Certificate #440 on the completed facility conformity with the

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- project documentation, state standards requirements, building norms and rules
12. Certificate № 733 on passing training courses “Legal and practical aspects of state procurement in Ukraine” by Nikolay Drachenko
 13. Certificate of completion for completion of the MS Project 2007. Nikolay Drachenko. Date 20.11.07
 14. Certificate of completion. Alexei Kirichenko has attended the Ovation Engineer Course at Emerson Process Management
 15. Certificate of completion. Fedor Chelter has attended the Ovation Engineer Course at Emerson Process Management
 16. Certificate on certification production measurement chemical laboratory. #VL-016-05 dated 10.02.2005
 17. Certificate on certification production measurement chemical laboratory. #VL-223/09 dated 12.10.2009
 18. Certificate on certification production measurement chemical laboratory. #VL-300-06 dated 12.02.2008
 19. Certificate on certification production measurement chemical laboratory. #VL-678/08 dated 12.02.2008
 20. Certificate. Andrey Shevchenko has successfully completed training course M5927 Microsoft Office Project 2007, Managing Projects
 21. Certificate. Nikolay Drachenko has successfully completed training course M5927 Microsoft Office Project 2007, Managing Projects
 22. Certificate. Oleksiy Feduro has successfully completed training course M5927 Microsoft Office Project 2007, Managing Projects
 23. Documentation on capital repair of boiler unit #9. 2006
 24. List of technical specifications of electric commercial metering points
 25. Mid-life repair of boiler unit #5. 2006
 26. Passport of conveyor scales SVEDAK VK-230-1400 No. 197
 27. Passport of conveyor scales SVEDAK VK-230-1400 No. 198
 28. Passport of electricity meter A1R-3-0L-C4-T, serial #01006111
 29. Passport of electricity meter A1R-3-0L-C4-T, serial #01006112
 30. Passport of electricity meter A1R-3-0L-C4-T, serial #01006113
 31. Passport of electricity meter A1R-3-0L-C4-T, serial #01006114
 32. Passport of electricity meter A1R-3-0L-C4-T, serial #01006115
 33. Passport of electricity meter A1R-3-0L-C4-T, serial #01006117



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34.	Passport #01006118	of	electricity	meter	A1R-3-0L-C4-T,	serial
35.	Passport #01006127	of	electricity	meter	A1R-3-0L-C4-T,	serial
36.	Passport #01006147	of	electricity	meter	A1R-4-AL-C4-T,	serial
37.	Passport #01006148	of	electricity	meter	A1R-4-AL-C4-T,	serial
38.	Passport #01006150	of	electricity	meter	A1R-4-AL-C4-T,	serial
39.	Passport #01006151	of	electricity	meter	A1R-4-AL-C4-T,	serial
40.	Passport #01006152	of	electricity	meter	A1R-4-AL-C4-T,	serial
41.	Passport #01006153	of	electricity	meter	A1R-4-AL-C4-T,	serial
42.	Passport #01006158	of	electricity	meter	A1R-4-AL-C8-T,	serial
43.	Passport #01006159	of	electricity	meter	A1R-4-AL-C8-T,	serial
44.	Passport #01006162	of	electricity	meter	A1R-4-AL-C8-T,	serial
45.	Passport #01006163	of	electricity	meter	A1R-4-AL-C8-T,	serial
46.	Passport #01006164	of	electricity	meter	A1R-4-AL-C8-T,	serial
47.	Passport #01006167	of	electricity	meter	A1R-4-AL-C8-T,	serial
48.	Passport #01006168	of	electricity	meter	A1R-4-AL-C8-T,	serial
49.	Passport #01006169	of	electricity	meter	A1R-4-AL-C8-T,	serial
50.	Passport #01006170	of	electricity	meter	A1R-4-AL-C8-T,	serial
51.	Passport #01006171	of	electricity	meter	A1R-4-AL-C8-T,	serial
52.	Passport #01006172	of	electricity	meter	A1R-4-AL-C8-T,	serial
53.	Passport #01006173	of	electricity	meter	A1R-4-AL-C8-T,	serial
54.	Passport #01006177	of	electricity	meter	A1R-4-AL-C8-T,	serial
55.	Passport #01006188	of	electricity	meter	A1R-4-AL-C8-T,	serial
56.	Passport #01006189	of	electricity	meter	A1R-4-AL-C8-T,	serial



57. Passport of electricity meter A1R-4-AL-C8-T, serial #01006190
58. Passport of electricity meter A1R-4-AL-C8-T, serial #01006191
59. Passport of electricity meter A1R-4-AL-C8-T, serial #01006192
60. Passport of electricity meter Energy-9, serial #36055
61. Passport of electricity meter Energy-9, serial #36056
62. Passport of electricity meter Energy-9, serial #36057

63. Passport of electricity meter Energy-9, serial #36058
64. Passport of electricity meter Energy-9, serial #36059
65. Passport of electricity meter Energy-9, serial #36060
66. Passport of electricity meter Energy-9, serial #36061

67. Passport of electricity meter EvroALFA, serial #01147029
68. Passport of electricity meter EvroALFA, serial #01147032
69. Passport of electricity meter EvroALFA, serial #01147035
70. Passport of electricity meter EvroALFA, serial #01147044
71. Passport of electricity meter EvroALFA, serial #01147058
72. Passport of electricity meter EvroALFA, serial #01147062

73. Passport of electricity meter EvroALFA, serial #01147067
74. Passport of electricity meter EvroALFA, serial #01147069
75. Passport of electricity meter EvroALFA, serial #01147072
76. Passport of electricity meter EvroALFA, serial #01147076
77. Passport of electricity meter EvroALFA, serial #01147077

78. Passport of electricity meter EvroALFA, serial #01147081
79. Passport of electricity meter EvroALFA, serial #01147082



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80. Passport of electricity meter EvroALFA, serial #01147084
81. Passport of electricity meter EvroALFA, serial #01147085
82. Passport of electricity meter EvroALFA, serial #01150406
83. Passport of electricity meter EvroALFA, serial #01150407
84. Passport of electricity meter EvroALFA, serial #01150409
85. Passport of electricity meter EvroALFA, serial #01150411
86. Passport of electricity meter EvroALFA, serial #01150412
87. Passport of electricity meter EvroALFA, serial #01154793
88. Passport of electricity meter EvroALFA, serial #01154794
89. Passport of railroad scales #16 VVET-25. TD-0. EP-0
90. Passport physical-chemical parameters of natural gas
03.2007
91. Passport physical-chemical parameters of natural gas
03.2008
92. Passport physical-chemical parameters of natural gas
03.2009
93. Passport physical-chemical parameters of natural gas
03.2010
94. Permission on the emission of contaminants in atmospheric
air by stationary sources №1423310600-10 від 27.02.2009
95. Permit amount of emission of contaminants in atmospheric
air by stationary sources №1423310600-10 від 27.02.2009
96. Photo of electricity meter A1R-3-0L-C4-T, serial #01006111
97. Photo of electricity meter A1R-3-0L-C4-T, serial #01006112
98. Photo of electricity meter A1R-3-0L-C4-T, serial #01006113
99. Photo of electricity meter A1R-3-0L-C4-T, serial #01006114
100. Photo of electricity meter A1R-3-0L-C4-T, serial #01006115
101. Photo of electricity meter A1R-3-0L-C4-T, serial #01006118



102. Photo of electricity meter A1R-3-0L-C4-T, serial #01006127
103. Photo of electricity meter A1R-4-AL-C4-T, serial #01006152
104. Photo of electricity meter A1R-4-AL-C4-T, serial #01006153
105. Photo of electricity meter A1R-4-AL-C8-T, serial #01006158
106. Photo of electricity meter A1R-4-AL-C8-T, serial #01006159
107. Photo of electricity meter A1R-4-AL-C8-T, serial #01006162
108. Photo of electricity meter A1R-4-AL-C8-T, serial #01006163
109. Photo of electricity meter A1R-4-AL-C8-T, serial #01006164
110. Photo of electricity meter A1R-4-AL-C8-T, serial #01006167
111. Photo of electricity meter A1R-4-AL-C8-T, serial #01006168

112. Photo of electricity meter A1R-4-AL-C8-T, serial #01006169
113. Photo of electricity meter A1R-4-AL-C8-T, serial #01006171
114. Photo of electricity meter A1R-4-AL-C8-T, serial #01006172

115. Photo of electricity meter A1R-4-AL-C8-T, serial #01006173

116. Photo of electricity meter A1R-4-AL-C8-T, serial #01006177
117. Photo of electricity meter A1R-4-AL-C8-T, serial #01006188
118. Photo of electricity meter A1R-4-AL-C8-T, serial #01006189
119. Photo of electricity meter A1R-4-AL-C8-T, serial #01006190

120. Photo of electricity meter A1R-4-AL-C8-T, serial #01006191
121. Photo of electricity meter Energy-9, serial #36055
122. Photo of electricity meter Energy-9, serial #36056
123. Photo of electricity meter Energy-9, serial #36057
124. Photo of electricity meter Energy-9, serial #36059
125. Photo of electricity meter Energy-9, serial #36060
126. Photo of electricity meter Energy-9, serial #36061
127. Photo of electricity meter EvroALFA, serial #01147029



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128. Photo of electricity meter EvroALFA, serial #01147032
129. Photo of electricity meter EvroALFA, serial #01147035
130. Photo of electricity meter EvroALFA, serial #01147044
131. Photo of electricity meter EvroALFA, serial #01147058
132. Photo of electricity meter EvroALFA, serial #01147067
133. Photo of electricity meter EvroALFA, serial #01147069
134. Photo of electricity meter EvroALFA, serial #01147072
135. Photo of electricity meter EvroALFA, serial #01147076

136. Photo of electricity meter EvroALFA, serial #01147077
137. Photo of electricity meter EvroALFA, serial #01147081
138. Photo of electricity meter EvroALFA, serial #01147082

139. Photo of electricity meter EvroALFA, serial #01147084

140. Photo of electricity meter EvroALFA, serial #01147085
141. Photo of electricity meter EvroALFA, serial #01150406
142. Photo of electricity meter EvroALFA, serial #01150407
143. Photo of electricity meter EvroALFA, serial #01150409

144. Photo of electricity meter EvroALFA, serial #01150411
145. Photo of electricity meter EvroALFA, serial #01150412
146. Photo of electricity meter EvroALFA, serial #01154793
147. Photo of electricity meter EvroALFA, serial #01154794

148. Photo of power unit #9
149. Protocol of analysis. Delivered mazut. 03.03.2009
150. Protocol of analysis. Delivered mazut. 07.03.2008



151. Protocol of analysis. Delivered mazut. 15.03.2009
152. Protocol of analysis. Delivered mazut. 18.03.2007
153. Protocol of analysis. Delivered mazut. 23.03.2008
154. Protocol of analysis. Delivered mazut. 26.03.2006
155. Protocol of analysis. Delivered mazut. 26.03.2007
156. Protocol of analysis. Delivered mazut. 31.03.2006
157. Protocol on verification of three-phase electricity meter A1R-4-AL-C8-T, serial #01006165
158. Protocol on verification of three-phase electricity meter A1R-4-AL-C8-T, serial #01006165
159. Protocol on workers training Kurakhovskaya TPP of work with electrical filter after upgrading. 29.04.2009
160. Report on atmospheric air protection for 2006. #2-TP form (air).
161. Report on atmospheric air protection for 2007. #2-TP form (air).
162. Report on atmospheric air protection for 2008. #2-TP form (air).
163. Report on atmospheric air protection for 2009. #2-TP form (air).
164. Specifications. Fuel oil. Mazut. ISO 4058-2001
165. Statement №330 on verification of railroad scales №0358 (№16) Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd. 15.12.2009
166. Statement №397 on verification of railroad scales №0358 (№16) Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd. 18.06.2010
167. Statement №752 on verification of railroad scales №0358 (№16) Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd. 15.12.2009

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168. Statement №78 on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 19.03.2010
169. Statement on operationability facility. Reconstruction of power unit #5 SU “Kurakhovskaya TPP” Skhidenergo ltd.
170. Statement on the verification of compliance with environmental legislation at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 04.06.2007-06.06.2007
171. Statement on the verification of compliance with environmental legislation at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 08.09.2009-25.09.2009
172. Statement on the verification of compliance with environmental legislation at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 08.09.2009-25.09.2009
173. Statement on the verification of compliance with environmental legislation at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 14.09.2006
174. Statement on the verification of realization directions on the reduction of violation of environmental legislation requirements SU “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 08.12.2008
175. Statement on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 05.03.2009
176. Statement on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 09.09.2008
177. Statement on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 17.09.2009
178. Statement on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 25.03.2008
179. Statement on verification of railroad scales №0358 (№16) Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 28.12.2007
180. Statement on verification of railroad scales №0368 Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. 09.10.2007
181. Techno-economic performance equipment for Kurakhovskaya TPP 03.2007-03.2007. Form 3-tech
182. Techno-economic performance equipment for Kurakhovskaya TPP 03.2008-03.2008. Form 3-tech
183. Techno-economic performance equipment for Kurakhovskaya TPP 03.2009-03.2009. Form 3-tech
184. Techno-economic performance equipment for Kurakhovskaya TPP 03.2010-03.2010. Form 3-tech
185. Techno-economic performance equipment for Kurakhovskaya TPP 05.2010-05.2010. Form 3-tech



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186. Techno-economic performance equipment for Kurakhovskaya TPP 07.2007-07.2007. Form 3-tech
187. Techno-economic performance equipment for Kurakhovskaya TPP 07.2008-07.2008. Form 3-tech
188. Techno-economic performance equipment for Kurakhovskaya TPP 07.2009-07.2009. Form 3-tech
189. Techno-economic performance equipment for Kurakhovskaya TPP 07.2010-07.2010. Form 3-tech
190. Techno-economic performance equipment for Kurakhovskaya TPP 12.2007-12.2007. Form 3-tech

191. Techno-economic performance equipment for Kurakhovskaya TPP 12.2008-12.2008. Form 3-tech
192. Techno-economic performance equipment for Kurakhovskaya TPP 12.2010-12.2010. Form 3-tech
193. The test results of coal that delivered to Kurahovsku TPP Skhidenergo" ltd. for 03.2006
194. The test results of coal that delivered to Kurahovsku TPP Skhidenergo" ltd. for 03.2007
195. The test results of coal that delivered to Kurahovsku TPP Skhidenergo" ltd. for 03.2008
196. The test results of coal that delivered to Kurahovsku TPP Skhidenergo" ltd. for 03.2009

Persons interviewed:

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

- /1/ Anna Drachenko - Lead specialist of Ecology Department
- /2/ Igor Petrov – Chief of Ecology Department
- /3/ Evgen Mazurov - Chief PTO
- /4/ Anatoliy Borychevskyy - Head of the Prospective Development Department
- /5/ Sergey Budnik - Chief of fuel supply Department
- /6/ Alexander Hripko - Deputy Chief of electrical Department
- /7/ Sergei Kostik - Chief of boiler-turbine Department
- /8/ Maxim Rogovoy - Deputy Director of JSC ELTA

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APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

VERIFICATION PROTOCOL

Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 02)

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
Project approvals by Parties involved					
90	Has the NFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	A Letter of Approval for Joint Implementation Project "Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd." No.753/23/7 dated 09/06/2010 issued by National Environmental Investment Agency of Ukraine.	N/a	N/a	OK
91	Are all the written project approvals by	Yes, all the written	N/a	N/a	OK



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
	Parties involved unconditional?	project approvals by Parties involved are unconditional.			
Project implementation					
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	CAR1: The most project activity that mentioned in MR's included to permanent repair, mid-life repair or capital repair. These repairs are common practise in power generation industry and can't be included to proposed project.	CAR1 - In the Baseline Scenario (2003-2005) there were also permanent repairs, mid-life repairs and capital repairs, but the SFR in those years did not get better. The volume of the measures implemented in the Project Scenario during the permanent repair, mid-life repair or capital repair is much wider then in the Baseline Scenario. All the measures, that should be included in the repair program as the common practice described in the GKD 34.20.661-2003 "The rules for the servicing and repairs of the equipment, buildings and constructions of the Power Plants and the Networks" Approved by the Ministry of the Fuel and	The issue is closed.	OK



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
			Energy of Ukraine in 2004. The measures implemented in the Project Scenario are beyond these obligatory volume		
		CL1: Please clarify why amount of emission reductions in 2008 lower then in 2007.	CL1 – The amount of the ER's in 2008 is lower then in 2007 mainly because of the electricity supply difference. In 2008 it is lower then in 2007, so the amount of the emission and ER's is also lower.	The issue is closed.	OK
93	What is the status of operation of the project during the monitoring period?	Project has been operational for the whole monitoring period, which is 01.01.2006 – 31.12.2007 and 01.01.2008 – 31.12.2009. FAR1: Please photograph every stages of unit reconstruction.	N/a	N/a	OK



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		CAR2: Please clarify deviations between PDD and MR's emission reductions and what are its reasons.	CAR2 – The deviations between PDD and MR's appeared because the calculations in the PDD were made using the average annual data. In the MR's the monthly calculations were used. Besides, the calculations of the 2009 ER's in the PDD were made using a predictable data. The financial crisis corrected those plans and the electricity supply was lowered in 2009. Consequently, the volume of the ER's was also lowered as far as it depends on the electricity supply.	The issue is closed.	OK
Compliance with monitoring plan					
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	FAR2: Please make sure that all journals and logbooks of fuel consumption and	N/a	N/a	OK



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
		<p>power generation will archive and saving during Project period.</p> <p>CAR3: Number of electricity meters in PDD is 59. In MR's mentioned only 30 electricity meters. Please explain this difference.</p> <p>CL2: Please provide Excel spreadsheets with emission reduction calculations.</p>	<p>CAR3 – The data for the PDD was provided by the TPP in 2008. So the number of meters was given for 2007. The number included main and reserved meters. Their quantity can change during the years, so the information about it is provided in each MR.</p> <p>Excel spreadsheets “мониторинг Ku.xls” was provided to BVC and checked by verification team.</p>	<p>The issue is closed.</p> <p>The issue is closed.</p>	<p>OK</p> <p>OK</p>
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks	<p>CAR4: Please correct figure in section B.1 of MR's:</p> <p><input type="checkbox"/> specify what data was collected by</p>	<p>CAR4 – The Fuel-Transport Dept. is responsible for the coal consumption data collection. The Boiler-Turbine Dept. is responsible for the heavy</p>	<p>The issue is closed.</p>	<p>OK</p>



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
	associated with the project taken into account, as appropriate?	every department of TPP <input type="checkbox"/> clarify who collected necessary IPCC data <input type="checkbox"/> clarify who carries out final data processing <input type="checkbox"/> specify responsible persons.	fuel oil consumption data collection. The Electricity Dept. collects the data about the electricity supply. The Chemical Lab checks the fuel for it's Net Caloric Value. The data about the natural gas consumption comes to the Production Technical Dept. This department collects all the data mentioned above and compiles the 3-TECH form. The IPCC data is being collected by the Project Developer (MR Developer) - ELTA. On the basis of the 3-TECH form ELTA calculates the Emission and the Emission Reductions. All the calculations are stored at the electronic database of the ELTA Company. The Responsible Person – Maksym Rogovoy (m_rogovoy@elta.kharkov.ua).		



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Yes, data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent. See CAR4 above.	N/a	N/a	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Yes, emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice	N/a	N/a	OK



VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
Applicable to JI SSC projects only					
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	N/a	N/a	N/a	N/a
Applicable to bundled JI SSC projects only					
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/a	N/a	N/a	N/a
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/a	N/a	N/a	N/a
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?	N/a	N/a	N/a	N/a
Revision of monitoring plan					
Applicable only if monitoring plan is revised by project participant					



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	N/a	N/a	N/a	N/a
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	N/a	N/a	N/a	N/a
Data management					
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	N/a	N/a	N/a	N/a
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	N/a	N/a	N/a	N/a
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	N/a	N/a	N/a	N/a
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	N/a	N/a	N/a	N/a
Verification regarding programs of activities (additional elements for assessment)					
102	Is any JPA that has not been added to	N/a	N/a	N/a	N/a



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
	the JI PoA not verified?				
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/a	N/a	N/a	N/a
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/a	N/a	N/a	N/a
104	Does the monitoring period not overlap with previous monitoring periods?	N/a	N/a	N/a	N/a
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/a	N/a	N/a	N/a
Applicable to sample-based approach only					
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: – The types of JPAs;	N/a	N/a	N/a	N/a



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
	<ul style="list-style-type: none"> – The complexity of the applicable technologies and/or measures used; – The geographical location of each JPA; – The amounts of expected emission reductions of the JPAs being verified; – The number of JPAs for which emission reductions are being verified; – The length of monitoring periods of the JPAs being verified; and – The samples selected for prior verifications, if any? 				
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	N/a	N/a	N/a	N/a
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	N/a	N/a	N/a	N/a
109	Is the sampling plan available for submission to the secretariat for the JISC.s ex ante assessment? (Optional)	N/a	N/a	N/a	N/a



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DVM Paragraph	Check Item	Initial finding	Action requested to project participants	Review of project Participants' action	Conclusion
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?	N/a	N/a	N/a	N/a