VERIFICATION REPORT

Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria

First Periodic Verification

of the JI Project "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria" in the City of SLIVO POLE, Rousse region, Bulgaria.

MONITORING PERIOD:
1 JANUARY 2008 TO 31 DECEMBER 2009

REPORT NO. BULGARIA- VER #/0004/2010

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BUREAU VERITAS CERTIFICATION

Report No: BULGARIA/0004/2010

VERIFICATION REPORT

Date of first issue: 26 July 2010	Organizational unit: Bureau Veritas Certification Holding SAS
Client: ASTRA BIO PLANT Ltd	Client ref.: Mr. Stanko Stankov

Summary:
Bureau Veritas Certification has made the verification of the "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria" project of ASTRA BIO PLANT Ltd located in the City of Slivo Pole, Rousse region, Bulgaria on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting, as well as the host country criteria.

The verification scope is defined as a periodic independent review and post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the Monitoring Report, Project Design Document 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. The first output of the verification process is a list of Clarification Requests, Corrective Actions Requests, Forward Actions Requests (CL, CAR and FAR), presented in Appendix A.

The verification is based on the Monitoring Report (covers January 1st 2008 – December 31st 2009), the Monitoring Plan, revised from 2010, determined PDD, Version 5/2007, and supporting documents made available to Bureau Veritas Certification by the project participant.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in validated 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 without material misstatements.

Reporting period: From 01/01/2008 to 31/12/2009.

Emission Reductions for 2008 : 534 t CO2 equivalents
Emission Reductions for 2009 : 38 004 t CO2 equivalents

Total Emission Reductions : 38 538 t CO2 equivalents

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To:

Report No.: BULGARIA/004/2010	Subject Group: JI
Project title: "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria"	
Work carried out by: Team Leader :Konstantin Rachev Team Member :Victor Bogdanov	
Work verified by: Internal technical reviewer – Ashok Mammen	

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Indexing terms
CERTIFICATION

Climate Change, Kyoto Protocol, JI, Emission Reductions, Verification

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Abbreviations

AIE	Accredited Independent Entity
BVCH	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CL	Clarification Request
CO_2	Carbon Dioxide
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Green House Gas(es)
IETA	International Emissions Trading Association
IEEC	Institute for Environment and Energy Conservation
JI	Joint Implementation
JISC	JI Supervisory Committee
MoV	Means of Verification
MP	Monitoring Plan
PCF	Prototype Carbon Fund
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

ASTRA BIO PLANT Ltd has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria" (hereafter called "the project") located in the City of Slivo Pole, Rousse region, Bulgaria.
This report summarizes the findings of the verification of the project, performed on the basis of criteria given to provide for consistent project operations, monitoring and reporting, and contains a statement for the verified emission reductions.
This report includes the findings of the periodic verification. It is based on the Initial Verification Report Template made from TUV SUD from 2009-09-22, and on this Periodic Verification Report, made upon the JI DVM requirements.
TUV SUD documented the results of the determination from 2007-05-17.
The Bulgarian Ministry of Environment and Water and the Republic of Austria approve projects (Letters of approval are presented). The project is registered under Track 1.

1.1 Objective

Verification is the periodic independent review and ex post determination by the AIE of the monitored reductions in GHG emissions during defined verification period.
The objective of verification can be divided in Initial Verification and Periodic Verification.
Initial Verification: The objective of an initial verification is to verify that the project is implemented as planned, to confirm that the monitoring system is in place and fully functional, and to assure that the project will generate verifiable emission reductions. A separate initial verification prior to the project entering into regular operations is not a mandatory requirement.
Periodic Verification: The objective of the periodic verification is to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan; furthermore the periodic verification evaluates the GHG emission reduction data and express a conclusion with a high, but not absolute, level of assurance about whether the reported GHG emission reduction data is free of material misstatements; and verifies that the reported GHG emission data is sufficiently supported by evidence, i.e. monitoring records. If no prior initial verification has been carried out, the objective of the first periodic verification also includes the objectives of the initial verification.
The verification follows UNFCCC criteria referring to the Kyoto Protocol criteria, the JI rules and modalities, and the subsequent decisions by the JISC, as well as the host country criteria.

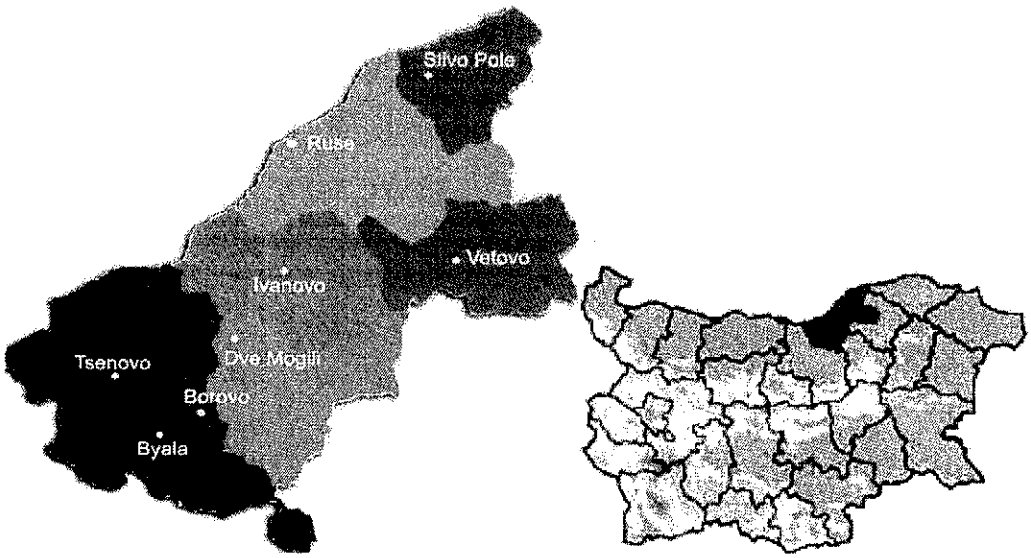
1.2 Scope

Verification scope is defined as an independent and objective review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions. The verification is based on the submitted monitoring report and the determined project design document including 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. Bureau Veritas Certification has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach in the verification, focusing on the identification of significant risks of the project implementation and the generation of ERUs.
The verification is not meant to provide any consulting towards the Client. However, stated requests for forward actions and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.
The audit team has been provided with a Monitoring Report (covering 2008 and 2009), Monitoring Plan from 2007 and revised MP from 2010 as well as Project PDD, determination Protocol and Initial Verification Report all listed in Section 6 of this Report.

1.3 GHG Project Description

The purpose of the project activity is to produce bio diesel derived from sunflower and rape crops for substituting petroleum diesel. The project has a capacity of 60,000 tons of bio diesel per year. The produced bio diesel is distributed on the base of contracts with buyers. "ASTRA BIO PLANT Ltd" (ABP) produces bio diesel according to the requirements of the Norm DIN EN 14214 (equivalent to Bulgarian BDS EN 14214). These contracts will obligate the buyers to use the bio-diesel only in Bulgaria.

The project will reduce greenhouse gas emissions by partially substituting petroleum diesel fuels with bio diesel fuel.



2 METHODOLOGY

The verification is as a desk review and field visit including discussions and interviews with selected experts and stakeholders.

In order to ensure transparency, a verification protocol was customized for the project, according to the Validation and Verification Manual (IETA/PCF) a verification protocol is used as part of the verification (see Section 6). 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 organises, details and clarifies the requirements the project is expected to meet; and
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 verification protocol consists of one table under Initial Verification checklist and four tables under Periodic verification checklist. The different columns in these tables are described in Figure 1.

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

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

Initial Verification Protocol Table 1			
Objective	**Reference**	**Comments**	**Conclusion (CARs/FARs)**
The requirements the project must meet	Gives reference to where the requirement is found.	Description of circumstances and further comments on the conclusion	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non-compliance of the stated requirements. Forward Action Request (FAR) indicates essential risks for further periodic verifications.

Periodic Verification Checklist Protocol Table 2: Data Management System/Controls		
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**
The project operator's data management system/controls are assessed to identify reporting risks and to assess the data management system's/control's ability to mitigate reporting risks. The GHG data management system/controls are assessed against the expectations detailed in the table.	A score is assigned as follows: • Full - all best-practice expectations are implemented. • Partial - a proportion of the best practice expectations is implemented • Limited - this should be given if little or none of the system component is in place.	Description of circumstances and further commendation to the conclusion. This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non compliance with stated requirements. The corrective action requests are numbered and presented to the client in the verification report. The Initial Verification has additional Forward Action Requests (FAR). FAR indicates essential risks for further periodic verifications.

Periodic Verification Protocol Table 3: GHG calculation procedures and management control testing		
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**
Identify and list potential reporting risks based on an assessment of the emission estimation procedures, i.e. ➢ the calculation methods, ➢ raw data collection and sources of supporting documentation, ➢ reports/databases/information systems from which data is obtained. Identify key source data. Examples of source data include metering records, process monitors,	Identify the key controls for each area with potential reporting risks. Assess the adequacy of the key controls and eventually test that the key controls are actually in operation. Internal controls include (not exhaustive): ➢ Understanding of responsibilities and roles ➢ Reporting, reviewing and formal management approval of data; ➢ Procedures for ensuring data completeness,	Identify areas of residual risks, i.e. areas of potential reporting risks where there are no adequate management controls to mitigate potential reporting risks Areas where data accuracy, completeness and consistency could be improved are highlighted.

operational logs, laboratory/analytical data, accounting records, utility data and vendor data. Check appropriate calibration and maintenance of equipment, and assess the likely accuracy of data supplied. Focus on those risks that impact the accuracy, completeness and consistency of the reported data. Risks are weakness in the GHG calculation systems and may include: ➢ manual transfer of data/manual calculations, ➢ unclear origins of data, ➢ accuracy due to technological limitations, ➢ lack of appropriate data protection measures? For example, protected calculation cells in spreadsheets and/or password restrictions.	conformance with reporting guidelines, maintenance of data trails etc. ➢ Controls to ensure the arithmetical accuracy of the GHG data generated and accounting records e.g. internal audits, and checking/ review procedures; ➢ Controls over the computer information systems; ➢ Review processes for identification and understanding of key process parameters and implementation of calibration maintenance regimes ➢ Comparing and analysing the GHG data with previous periods, targets and benchmarks. When testing the specific internal controls, the following questions are considered: 1. Is the control designed properly to ensure that it would either prevent or detect and correct any significant misstatements? 2. To what extent have the internal controls been implemented according to their design; 3. To what extent have the internal controls (if existing) functioned properly (policies and procedures have been followed) throughout the period? 4. How does management assess the internal control as reliable?	

Periodic Verification Protocol Table 4: Detailed audit testing of residual risk areas and random testing		
Areas of residual risks	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including Forward Action Requests)**
List the residual areas of risks (Table 2 where detailed audit testing is necessary. In addition, other	The additional verification testing performed is described. Testing may include: 1. Sample cross checking of manual transfers of data	Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties should be highlighted. Errors and uncertainty can be due to a number of reasons:

material areas may be selected for detailed audit testing.	2. Recalculation 3. Spreadsheet 'walk throughs' to check links and equations 4. Inspection of calibration and maintenance records for key equipment ➢ Check sampling analysis results ➢ Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.	➢ Calculation errors. These may be due to inaccurate manual transposition, use of inappropriate emission factors or assumptions etc. ➢ Lack of clarity in the monitoring plan. This could lead to inconsistent approaches to calculations or scope of reported data. ➢ Technological limitations. There may be inherent uncertainties (error bands) associated with the methods used to measure emissions e.g. use of particular equipment such as meters. ➢ Lack of source data. Data for some sources may not be cost effective or practical to collect. This may result in the use of default data which has been derived based on certain assumptions/conditions and which will therefore have varying applicability in different situations. The second two categories are explored with the site personnel, based on their knowledge and experience of the processes. High risk process parameters or source data (i.e. those with a significant influence on the reported data, such as meters) are reviewed for these uncertainties.

Verification Protocol Table 5: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 2/3**	**Summary of project owner response**	**Verification conclusion**
If the conclusions from the Verification are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 2, 3 and 4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the verification team should be summarized in this section.	This section should summarize the verification team's responses and final conclusions. The conclusions should also be included in Tables 2, 3 and 4, under "Final Conclusion".

Figure 1 Verification protocol tables

2.1 Review of Documents

The Monitoring Report (MR) submitted by ASTRA BIO PLANT Ltd and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), applied methodology, Kyoto Protocol, Clarifications on Verification Requirements to be checked were reviewed.

The verification findings presented in this report relate to the project as described in the PDD version 5 and Monitoring Report versions 2.0 from 04 August 2010 (last version).

2.2 Follow-up Interviews

On 20/07/2010, Bureau Veritas Certification performed field visit (on site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of ASTRA BIO PLANT Ltd were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
ASTRA BIO PLANT 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; Baseline methodology; Monitoring report; Monitoring Plans; Deviations from PDD and MP; Project emissions and Leakages;
Local Stakeholder:	Social and Environmental impacts

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.

Findings established during the initial verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

Corrective Action Requests (CAR) are issued, where:
i) there is a clear deviation concerning the implementation of the project as defined by the PDD;
ii) requirements set by the MP or qualifications in a verification opinion have not been met; or
iii) there is a risk that the project would not be able to deliver (high quality) ERUs.

Forward Action Requests (FAR) are issued, where:
iv) the actual status requires a special focus on this item for the next consecutive verification, or
v) an adjustment of the MP is recommended.

The verification team may also use the term Clarification Request (CL), which would be where:
vi) additional information is needed to fully clarify an issue.

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

3 FIRST PERIODIC VERIFICATION FINDINGS

Verification is the periodic independent review and ex post determination by the AIE of the monitored reductions in GHG emissions during defined verification period.
In the following sections, the findings of the verification are stated. The verification findings for each verification subject are presented as follows:
1) The findings from the desk review of the original project activity documents and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Verification Protocol in Appendix A.
2) The conclusions for verification subject are presented.

In the final verification report, the discussions and the conclusions that followed the preliminary verification report and possible corrective action requests are encapsulated in this section.

3.1 Remaining issues CAR's, FAR's from previous verification

For this project there is documented an Initial Verification Report, prepared from TUV SUD dated 2009-09-22. All opened CARs and CLs were closed during the Initial Verification. Two FARs are documented and checked during this periodic verification.

Forward Action Request (FAR)1
To be verified for first verification:

1. Additional of Bio Diesel procedure for measure NCV determination procedure in document "Description of QMS".
2. Additional agreement for measuring of Bio diesel NCV by SGS Bulgaria Ltd., in contract between laboratory and ABP.

Response
During the On-site visit of the project, this issue was discussed with Mr. Dimitar Minchev – Bio Diesel Plant Manager and Mrs. Koleva, head of SGS Laboratory. The explanation was that the Bio Diesel Plant follows the requirement of EN and Bulgarian Standard for Bio Diesel production. Furthermore, the controlled monitoring parameters are not changes during the production cycle, so the Bio Diesel NCV is not changing also.

During the On-site visit of the project was checked the Protocol №528/15.02.2010 for determination of Bio Diesel NCV from SGS Laboratory.
There is a documented agreement between SGS laboratory and ABP for measuring Bio Diesel parameters during the production cycle (Contact from 20.05.2008).

Conclusion of the Verification team

Evidencing documents were seen and found satisfactory. Issue is closed.

Forward Action Request (FAR) 2

Permit for Waste Water Discharge into water bodies, issued by MoEW to be provided to AIE.

Response

The company possessed Environmental Complex Permission (IPPC) №254-HO/07.08.2008 which abolish issuing of such permission.

Conclusion of the Verification team

Issue is closed.

3.2 Project Implementation

3.2.1 Discussion

The project implementation date as per the PDD and the real implementation date are described in the following table.

Description of the Document and Action	Date according to PDD	Date actual
First version of PIN sent by ABP to Bulgarian Ministry of Environment and Water (MOEW)	22.02.2006	22.02.2006
Letter from MOEW to ABP with request for improvement of the PIN	17.03.2006	17.03.2006
Second version of PIN sent by ABP to MOEW	24.03.2006	24.03.2006
Official registering of the Project Proposal by MOEW – number: 26-00-587	29.03.2006	29.03.2006
Announcement in the local newspaper UTRO – Notification for Investment in the area of the municipality	01.04.2006	01.04.2006
Letter from ABP to the mayor of SLIVO POLE – Notification for Investment in the area of the municipality	03.04.2006	03.04.2006
Standpoint by MOEW on the second version of PIN	04.05.2006	04.05.2006
Notification Letter for Investment intend	12.05.2006	12.05.2006
Standpoint by MOEW – Branch Rousse on the Notification Letter	25.05.2006	25.05.2006
LETTER OF SUPPORT by MOEW	May 2006	May 2006
Construction Permit by Municipality of SLIVO POLE	Oct. 2006	24.10.2006
Start of the project	Nov. 2006	09.11.2006
LOA by the Republic of Austria through the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management		06.03.2008
Environment Complex Permission		07.08.2008
Commissioning (Act. 16) of Bio-diesel Facilities (Extractor).		18.08.2008
Estimated start of production bio-diesel	01.07.2007	01.12.2008
Presentation of the Project to the MOEW Steering Committee		29.11.2009
LOA by the Bulgarian MOEW		15.01.2010

3.2.2 Findings

The deviation was found for estimated start of the production between the PDD and actual date. The main reason for that is prolonging the procedure for issuing the Environmental Complex Permission (IPPC). The deviation was found also in the estimated ERUs in the PDD and real ERUs during this verification. The real amount of ERUs is smaller in compare to the given in the PDD. During the verification process, the following reasons have been finded and discussed related to the differences between Emission Reductions in the PDD and in the Verification Report:

- The duration of the issuing of the Complex Building Permission by the Bulgarian Authorities of the Bio-diesel Plant has been continued quite long time (17 Months), which caused delays for commissioning of the project.
- The amount of the produced Bio-diesel for the verified period is less than it is foreseen in the PDD because of market conditions, economical conditions and no incentive for customer to change from petroleum diesel to bio-diesel.

- During the verification period, the owner of the project has faced some technical problems related to production processes caused mainly by subcontractors, this led to a lower output of the facility.

The proposed project is the first of its kind in Bulgaria and faces some new procedures, documentation and other relevant actions.

According to PDD, two possibilities for using of the glycerin as a fuel and one for using for medicine or cosmetic industry are described. Here had been envisaged usage of high quality Glycerin. The project owner could not reach production of high quality Glycerin because of technological reasons.Because of the mentioned technological problem, the Glycerin is distributed to other customers.

3.2.3 Conclusion

The project complies with the requirements.

3.3 Internal and External Data

3.3.1 Discussion

The monitoring approach in the Monitoring Plan (2007) of the PDD version 5 requires monitoring and measurement of variables and parameters necessary to quantify the baseline, project and leakage emissions in a conservative and transparent way. The same approach is applied in the revised Monitoring Plan during 2010, developed for presenting the real economic situation. In the revised monitoring plan in Check 2, is added "Table for distribution flow chart" taken from the PDD as well as presented in the Check 3, updated information in Table 1 concerning "List of potential consumers and responsible persons". The revised MP gives more detailed and actual information about the real economic and trading activity of the project. The monitoring parameters are not changed.
The parameters that are determined to quantify the baseline, project and leakage emissions are presented in the Monitoring Report and in the Monitoring Plan.
According to the determined Monitoring Plan, project, baseline and leakage emissions as well as emission reductions are calculating on the annual basis.
Changes that have been implemented do not affect conservativeness of the approach to the emission reductions calculations and procedures of the data collection and archiving.

3.3.2 Findings

Identified areas of concern are described in Appendix A Table 5 (refer to CL 3; CL 11).

3.3.3 Conclusion

The provided additional information is sufficient and all CLs were closed. Issue is closed.

3.4 Environmental and Social Indicators

3.4.1 Discussion

Bio-diesel and other bio-fuels are produced from renewable agricultural crops that assimilate carbon dioxide from the atmosphere while growing. In comparison with petroleum diesel, bio-diesel is clean, safe, biodegradable and free of sulphur.
ASTRA BIO PLANT Ltd. possessed Environmental Complex Permission (IPPC) issued on 07.08.2008 and Permission for using the underground water №11530039/25.06.2007 for the Project activity.

ASTRA BIO PLANT Ltd. meets all required standards to limit transboundary effects.

3.4.2 Findings

None

3.4.3. Conclusion

The project complies with the JI requirements as well as with the local requirements.

3.5 Management and Operational System

3.5.1 Discussion

The project is a result of the partnership between the following companies.

ASTRA BIO PLANT Ltd.

The company was incorporated with Decision No. 2601/ 17.11.2005, company case No. 1061/ 2005 of the District Court of Rousse, volume 160, page 107. Mrs. TEMENUGA DIMITROVA STANKOVA, General Manager, represents the company. Its seat and registered address is 7000 Rousse, 100 TUTRAKAN Blvd. ASTRA BIO PLANT Ltd. was founded for this project, 100 % owned by ASTRA FINANCE Ltd. (see below).

ASTRA FINANCE Ltd.

ASTRA FINANCE Ltd. has been registered in the year 2000. The main business of the mother company is the trade with agricultural products, fertilizers and fuels. Buildings for storing grain and fertilizers are licensed. The capacity is about 60,000 tons. ASTRA BIO PLANT Ltd. was established by ASTRA FINANCE Ltd at the end of 2005. The reason to establish the company in the region of SLIVO POLE was the high unemployment rate (tax advantages for hiring employees in this area, no corporate tax). ASTRA FINANCE Ltd. bought land for the production plant, which are important assets to ASTRA BIO PLANT Ltd.

BULMARKET DM Ltd.

BULMARKET DM Ltd. is a 100 % private Bulgarian enterprise that was established in 1996.The seat of the company is 7000 Rousse, 100 TUTRAKAN Blvd. The company's main business is the distribution of LPG and to a less considerable degree of natural gas, gas oil, petrol and other fuels. Since 1998 BULMARKET DM Ltd. has proved to be a key player on the LPG market in Bulgaria with approximately 15-20 % share in the wholesale trading.

The reporting obligations intend to state that the installations comply with the major assumptions used in the baseline. Therefore, the Monitoring Workbooks have been prepared to calculate the emission reductions in relation with the baseline methodology and to avoid an overestimation of the emission reductions.

ASTRA BIO PLANT Ltd., the project sponsor, is responsible for the management and operation of the monitoring system. Therefore ASTRA BIO PLANT Ltd. signed a Carbon Financing Service Agreement with Camco International Ltd. for the bio-diesel project. This agreement forms the basis for the cooperation between ABP and Camco.

Person(s) responsible for the preparation of the Monitoring Report

ASTRA BIO PLANT Ltd.

- Mr. Ivan Kalchev, Project Manager and consultancy

Camco International

- Mr. Oleg Ryumin, JI Manager

3.5.2 Findings

Identified areas of concern are described in Appendix A Table 5 (refer to CAR 1; CAR 2; CL1).

3.5.3 Conclusion

The provided additional information is sufficient and all CARs and CL were closed. Issue is closed.

3.6 Completeness of Monitoring

3.6.1 Discussion

The determined MP dated 05/2007 was changed with updated Monitoring Plan for this JI Project during 2010. In the revised monitoring plan in Check 2, is added "Table for distribution flow chart" taken from the PDD as well as presented in the Check 3, updated information in Table 1 concerning "List of potential consumers and responsible persons". In this table is documented the real ASTRA BIO PLANT Ltd. clients for the verification period.

The Monitoring Plan has been carried out in accordance with the Monitoring Plan contained in the registered PDD The project participants provided an appropriate justification for the proposed revision, documented in List of explanation for revision.
The proposed revision improves the accuracy of information collected, compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

3.6.2 Findings

Identified areas of concern are described in Appendix A Table 5 (refer to CAR3; CAR4; CL2; CL4; CL5; CL6; CL7; CL12; CL14).

3.6.3 Conclusion

The provided additional information is sufficient and all CARs and CLs were closed. Issue is closed.

3.7 Accuracy of Emission Reduction Calculations

3.7.1 Discussion

The existing situation in Bulgaria is the consumption of petroleum diesel in the transport sector. The combustion of petroleum diesel involves GHG-emissions as well as other air pollutants. The project scenario is to produce bio-diesel, pure or mixed with petroleum diesel fuel, and use it as an alternative to petroleum diesel in Bulgaria.
The reduction of anthropogenic emissions of GHGs will occur through the substitution of petroleum diesel with bio-diesel.

The audit team confirms that emission reduction calculations have been performed according to the Monitoring Plan.

Project consists of 47 monitoring parameters. Some of the parameters that are used in the calculation of the baseline and project emissions are measured directly with the use of special equipment while others are estimated with the use of appropriate coefficients and documents.

Important note:
The valid and actual law for this JI project is „Law for renewable and alternative energy sources and bio fuels". During the first verification period covering 2008 and 2009 the low requires mixing (blending) the petroleum diesel with bio diesel fuel (article 24). In the Law, there was no specific target for this requirement of blending. It is important to mention that this requirement was not followed due to official statement from Bulgarian Ministry of Economy, Energy and Tourism that this Law was not followed during 2008 and 2009. Therefore, in this case check four from MP shows that the project is additional.
A Letter №26-A-108/10.05.2010 from the Ministry of Economy, Energy and Tourism to ASTRA BIO PLANT Ltd., was checking during the verification, concerning fulfillment of

Annex 1 of MP and statement that the Law was not followed. Approving this statement was checking also a shorthand record of Republic of Bulgaria Council of Ministers meeting from 2009 10-14.

3.7.2 Findings

Identified areas of concern are described in Appendix A Table 5 (refer to CL 8; CL9; CL10; CL13). There is also documented a FAR №1 (Table 5 of this Report).

3.7.3 Conclusion

The provided additional information is sufficient and all CLs were closed. Issue is closed.

3.8 Quality Evidence to Determine Emissions Reductions

3.8.1 Discussion

Concerning verification the calculation of emission reductions is based on internal data and external data. The origin of those data was explicitly checked. Further, on, entering and processing of those data in the monitoring workbook Excel sheets were checked where predefined algorithms compute the annual value of the emission reductions. All equations and algorithms used in the different workbook sheets were checked. Inspection of calibration and maintenance records for key equipment was performed for all relevant meters.
Necessary procedures have been defined in internal procedures and additional internal documents relevant for the determination of the various parameters on daily basis. The company is also certified against ISO 9001:2008 Standard.

The verified Excel files are:

- ASTRA Emission Reduction 0809 file
- BD Sold-0809-WB-Bills file
- Input Materials file

3.8.2 Findings

None.

Please also refer to point 3.7.2 of this Report

3.8.3 Conclusion

The provided additional information is sufficient and all CLs were closed. Issue is closed.

3.9 Management System and Quality Assurance

3.9.1 Discussion

Mr. Ivan Kalchev, Project Manager and consultant, implements the general management of the monitoring team. On-site day-to-day (operational) management collects the required monitoring data. The technological process data is logged into the PCs continuously. The chief accountant collected all dispatch notes and invoices necessary for emission reduction estimations. Chief power engineer is responsible for electric meter data recording and archiving as well as control of the measurement equipment. Mr. Dimitar Minchev – Bio Diesel Plant Manager is responsible for managing the producing activity. Mr. Stanko Stankov – General manager control the whole project activity.

3.9.2 Findings

Identified area of concern are described in Appendix A Table 5 (refer to CL15).

3.9.3 Conclusion

The provided additional information is sufficient and a CL was closed. Issue is closed.

4 PROJECT SCORECARD

Risk Areas		Conclusions			Summary of findings and comments
		Baseline Emissions	Project Emissions	Calculated Emission Reductions	
Completeness	Source coverage/ boundary definition	✓	✓	✓	All relevant sources are covered by the monitoring plan and the boundaries of the project are defined correctly and transparently.
Accuracy	Physical Measurement and Analysis	✓	✓	✓	State-of-the-art technology is applied in an appropriate manner. Appropriate backup solutions are provided.
	Data calculations	✓	✓	✓	Emission reductions are calculated correctly
	Data management & reporting	✓	✓	✓	Data management and reporting were found to be satisfying.
Consistency	Changes in the project	✓	✓	✓	Results are consistent to underlying raw data.

5 FIRST PERIODIC VERIFICATION STATEMENT

Bureau Veritas Certification has performed a verification of the JI project "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria" project of ASTRA BIO PLANT Ltd located in the City of Slivo Pole, Rousse region, Bulgaria The verification is based on the currently valid documentation of the United Nations Framework Convention on the Climate Change (UNFCCC).

The management of the ASTRA BIO PLANT 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 Monitoring Plan revised 2010 and found more accurate for the monitoring period stated. 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 verified the project Monitoring Report for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in validated and registered project design documents and revised Monitoring Plan. 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 calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the valid and registered project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated us confirm the following statement:

Reporting period: from 01/01/2008 to 31/12/2009
Baseline emissions: 51 144 t CO2 equivalents.
Project emissions: 8 123 t CO2 equivalents.
Leakage emissions: 4 483 t CO2 equivalents.
Emission Reductions: 38 538 t CO2 equivalents.

6 REFERENCES

Category 1 Documents:
Documents provided by that relates directly to the GHG components of the project.

/1/ Monitoring Report for 2008 and 2009 of JI Project "Sunflower and rape seeds – bio diesel fuel production and use for transportation in Bulgaria" dated from 2010

/2/ PDD "Sunflower and rape seed – bio diesel fuel production and use for transportation in Bulgaria" dated 2007-05-25, version 5

/3/ Monitoring Plan dated from 05/2007

/4/ Monitoring Plan revised from 2010

/5/ Determination Report from TUV SUD dated 2007-05-25

/6/ Initial Verification Report from TUV SUD dated 2009-09-22

/7/ Letter of Approval from Bulgarian Ministry of Environment and Water dated 2010-01-15

/8/ Letter of Approval from Republic of Austria dated 2008-03-06

/9/ Letter of Support from Bulgarian Ministry of Environment and Water dated 2006

/10/ Annex 2 – Baseline estimation

/11/ ASTRA Emission Reduction Estimation File

/12/ ASTRA Bio Diesel Excel File

/13/ ASTRA Input Materials Excel File

/14/ Appendixes from 1 to 3 listed in the MP

/15/ Letter from the Ministry of Economy, Energy and Tourism №26-A-108/10.05.2010 to ASTRA BIO PLANT Ltd.

/16/ Republic of Bulgaria Council of Ministers shorthand record from 2009 10-14.

/17/ Bio Diesel Technology Regulation

/18/ Protocol №528/15.02.2010 for determination of Bio Diesel NCV from SGS Laboratory

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

/19/ Environmental Complex Permission (IPPC) dated 2008-08-18

/20/ Permission №11530039 for using underground water dated 2007-06-25

/21/ ISO 9001:2008 Certificate issued by SGS

/22/ Contract between ASTRA BIO PLANT Ltd and SGS Bulgaria Ltd. dated 2008-05-20

/23/ Contacts with buyers together with Annex 2

Persons interviewed:

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

/1/ Mr. Stanko Stankov – General manager

/2/ Mr. Ivan Kalchev – Project Manager and consultant

/3/ Mr. Dimitar Minchev – Bio Diesel Plant Manager

/4/ Mr. Rusan Gordeev - Bio Diesel Plant chief power engineer

/5/ Mrs. Marinela Czvetkova – chief accountant

/6/ Mrs. Petranka koleva – Chief of SGS Bio Diesel Plant laboratory

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APPENDIX A: COMPANY JI PROJECT VERIFICATION PROTOCOL

Initial Verification Protocol Table 1

Objective	Reference	Comments	Conclusion (CARs/FARs)
TUV SUD prepared and documented Initial Verification Protocol from 2009-09-22. This Protocol was check during the first verification.	6	There are two open FARs from the Initial protocol. All of them are explained in section 3.1 from this Report. All CARs and CLs were closed during the Initial Verification process.	OK

Periodic Verification Checklist Protocol Table 2: Data Management System/Controls

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
1. Defined organizational structure, responsibilities and competencies		
1.1. Position and roles	Full	For this monitoring period the names of the personnel involved is as follows: • Mr. Stanko Stankov – General manager • Mr. Ivan Kalchev – Project Manager and consultant • Mr. Dimitar Minchev – Bio Diesel Plant Manager • Mr. Rusan Gordeev - Bio Diesel Plant chief power engineer • Mrs. Marinela Cvetkova – chief accountant • Mrs. Petranka koleva – Chief of SGS Bio Diesel Plant laboratory
1.2. Responsibilities	Partial	The staff responsibilities are describes in the Monitoring Plan and in the Monitoring Report. For ASTRA BIO PLANT Ltd. is appointed Mr. Ivan Kalchev and for Camco International – Mr. Oleg Ryumin, JI Manager. The Bio Diesel Plant is certified against ISO 9001:2008 from SGS Bulgaria. Please also refer to CAR 1; CL 15

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
1.3. Competencies needed	Full	The appointed staffs that have the necessary competence and skills carry out the monitoring of bio diesel production. The consultant's competence regarding the preparation of monitoring reports is also sufficient. Furthermore, during the on site visit, there were checked the conducted training of the used measurements devices, equipment and used software.
2. Conformance with monitoring plan		
2.1. Reporting procedures	Partial	The reporting procedures are described in the revised Monitoring Plan, in the PDD and in the Monitoring Report. There are insufficient deviations to the Monitoring Plan documented in the PDD, However, it was documented a CAR. Please also refer to CAR 3 and FAR 1.
2.2. Necessary Changes	Partial	Project implementation schedule has faced some delays due to administrative reasons and prolonging the procedure for issuing the Environmental Complex Permission. The determined MP was changed during the 2010. This is explained in point 3.3.1 of this report. Please also refer to CL 1
3. Application of GHG determination methods		
3.1. Methods used	Full	The reporting procedures reflect the monitoring plan content. The calculation of the emission reduction is correct.
3.2. Information/process flow	Full	The method to determine GHG emissions is clearly documented in the Monitoring Report and in the Monitoring Plan for this JI project Activity.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
3.3. Data transfer	Full	There is no automatic data transferred between or within systems/spreadsheets. Data are transferred between different sources of information and put in the required monitoring excel files. This data are cross check all the time. Final monitoring files are checked again before presented to the verifiers. During the on site visit of the company on the random basic were verified the documented data in file "Input materials" and "Bio Diesel sold" as follows: - Dispatch notes for 12/2008; 04/2009; 07/2009; 08/2009; 10/2009 and 11/2009 - Crude oil delivery for 12/2008; 03/2009 and 06/2009 - Sunflower delivery for 02/2009; 03/2009 and 06/2009 - Rape delivery for 03/2009 and 06/2009 No deviation found.
3.4. Data trails	Full	All documents with required data are physically available (daily and monthly documents). During the on site visit was proved that there is good data trails.
4. Identification and maintenance of key process parameters		
4.1. Identification of key parameters	Partial	The critical parameters for the determination of GHG emissions are the parameters listed in the approved PDD, Monitoring Report and Monitoring Plan. Please also refer to CL2; CL3; CL4; CL5; CL6; CL7; CL11; CL12; CL14
4.2. Calibration/maintenance	Partial	The company maintains the elaborate calibration plan for each of the equipment. The verifiers check the status of all the equipment at the sites and found them to be complying with the requirements. The main equipment that is used is two weighbridges. During the On site visit was checked that they are with valid calibration up to 03/2011. Company also use one electro meter that is owned by the grid owner (National electrical Company). This meter is periodically replaced with new one. The last replacement were during 07/2008 and 05/2010.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
		There are also two Water meters calibrated on 2010-02-12. All devices were calibrated from authorized laboratory and regarding Bulgarian Laws. All necessary protocols were physically available and checked. There is no deviation found. Please also refer to CAR 4
5. GHG Calculations		
5.1. Use of estimates and default data	Partial	The information is presented in the Monitoring Report in Table "List of Parameters to be monitored' and Table "Actual values of the monitored parameters". The company used also two Excel files for Emission Reduction Estimations that are "Bio Diesel sold" and "Input materials". Please also refer to CL8; CL9; CL10; CL13
5.2. Guidance on checks and reviews	Full	CO_2 emission reductions calculations are performing on the monthly basis by the Project manager and consultant. All energy sources flows such as electricity, logging in Excel file. All dispatch notes and Invoices are collected from the chief accountant. All the monitoring parameters are collected, documented and checks by the Project manager and consultant, Mr. Kalchev.
5.3. Internal validation and verification	Partial	All the monitoring parameters are collected, documented and checks by the Project manager and consultant, Mr. Kalchev. However, a CAR was documented. Please also refer to CAR 2
5.4. Data protection measures	Full	The necessary procedures relating to Information technology are in place to provide necessary data security, and prevent the unauthorized use of the same. No specific protections are used.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
5.5. IT systems	Full	Data is collected in electronic database. No specific IT systems are used for GHG monitoring and reporting.

Periodic Verification Protocol Table 3: GHG calculation procedures and management control testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
Failure of the monitoring meters (measuring devices)	Errors because of technical failure or insufficient calibration are possible.	All monitoring meters (measuring devices) are controlled permanently from the competent laboratory and company responsible staff. The meters are calibrated according to the requirements of the manufacturer and regarding Bulgarian legislation, by external authorized laboratory. The company possessed two calibrated weighbridges so if one is out of order it can be used the second one. Hence, a severe failure of the monitoring meters is rather unlikely.
Failure in data collection and management	Failures because of incorrect computer handling or incorrect data input are possible.	Specialists handle the computers. Responsible persons verify the data input. Hence, errors in data collection and management are unlikely.
Errors in calculation	Errors because of wrong data input or false formulae are possible	The calculation spreadsheets were checked during the verifications. Experts do the input of the data. Hence, the risk of calculation errors is considered low. Hence, the calculations are check also by the consultant.

Periodic Verification Protocol Table 4: Detailed audit testing of residual risk areas and random testing

Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
The issue remaining is the way the data obtained is used to calculate the emission reduction in a conservative manner according to the approach prescribed in the PDD.	There has been a complete check of data transferred from daily consumption and generation readings to the calculation tool. There was no error in such transfer. The correct installation of the metering equipment can be confirmed.	Having investigated the residual risks, the audit team comes to the following conclusion: Immediate action is not needed with respect to the current emission reduction calculation. Those corrections have been considered during the verification process, so no residual risk is open.

Verification Protocol Table 5: Resolution of Corrective Action and Clarification Requests

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
Corrective Action Request CAR №1 Please provide information in the Monitoring Report about the operational and management structure about the implementation of the Monitoring Plan. Please provide name, position and contact information. Please provide information about the data archiving procedure.	Table 2, point 1.2	Refer to the «Annex II: QMS Description" in the Monitoring Report.	The additional information provided is sufficient. This CAR is considered closed.
Corrective Action Request CAR №2 Please provide information in the Monitoring Report about the procedure for periodic internal verification of data and emission reduction estimation.	Table 2, point 5.3	Refer to the «Annex II: QMS Description" in the Monitoring Report.	The additional information provided is sufficient. This CAR is considered closed.
Corrective Action Request CAR №3 Please provide information in the Monitoring Report about the requirements for archiving of monitoring data and parameters and monitoring files.	Table 2, point 2.1	Refer to the «Annex II: QMS Description" in the Monitoring Report.	The additional information provided is sufficient. This CAR is considered closed.
Corrective Action Request CAR №4	Table 2,	Refer to the «Annex II: QMS Description" in the	The additional information

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
Please provide information in the Monitoring Report about the used monitoring equipment and their calibration period in tabular format. Please present used equipment, ID number, accuracy levels, calibration protocol, etc.	point 4.2	Monitoring Report.	provided is sufficient. This CAR is considered closed.
Clarification Request CL №1 Please provide information in the Monitoring Report about the respective implementation procedure for approval of this JI Project (Track 1 or 2) and is the project PDD submitted to JISC for registration.	Table 2, point 2.2	The required information is provided in the Monitoring Report as 2.6.1, page 5 as follow: The implementation procedure for approval of this JI Project (Track 1 or 2) have been initiated with Letter by ASTRA to the Minister of MOEW (No128/10.05.2010) in accordance with "Instruction for approval of JI Projects under Track I" approved by MOEW (§ 3 of "Final and transitional provisions"). The project PDD is submitted by MOEW to JISC for registration.	The additional information provided is sufficient. This CL is considered closed.
Clarification Request CL №2 Where numbers in Excel sheet "BD Sold" row 29 comes from?	Table 2, point 4.1	First of all those values are in accordance with «Distribution Flow Chart» - Channal 1. That is a Bio Diesel used as a fuel for Steam Power Station of the Plant. The values themselves com from ASTRA Bio Diesel Plant Internal Protocols in accordance with "Technological Standards" used by the Plant. Those Protocols as far as the Standards are provided to AIE during verification.	The additional information provided is sufficient. This CL is considered closed.

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
		The standards are created on the base of practical measurements and calculations by technologists of the Plant.	
Clarification Request CL №3 Please provide detailed technical information about the used electricity consumption factor in Excel file "Input materials". How this electricity factor was calculated?	Table 2, point 4.1	The used electricity factor come from the «Technological Standards» of the Plant for production of 1 ton Bio Diesel. Technological Standards for input materials and consumables used by production of Bio Diesel are provided to the AIE during verification. Those standards are created on the base of practical measurements and calculations by technologists of the Plant.	The additional information provided is sufficient. This CL is considered closed.
Clarification Request CL №4 Please provide additional information on how the values of parameter i.d. No 131.6 in the Monitoring Report have been chosen?	Table 2, point 4.1	Annex 3 Questionnaire by local farmer association. Additional information have been chosen from: **European Journal of Agronomy** Volume 5, Issues 1-2, October 1996, Pages 137-147 **Dry matter and nitrogen accumulation and residues of oil and protein crops** **H. -P. Kaul, W. Aufhammer and W. Wägner** Plant residues of oil crops contained 20–140 kg N ha^{-1}	The additional information provided is sufficient. This CL is considered closed.

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
Clarification Request CL №5 Please provide additional information on how the values of parameters i.d. No 111.8, 111.1 & 111.3 in the MR have been chosen. It is mentioned that they have been taken from the documentation of ASTRA but do they correspond to the technological standards in the production of biodiesel?	Table 2, point 4.1	The value of parameter 111.1 is a result of calculation on the base of Bio Diesel Sold (WB despatch Note) and conversion factor (0.12 MWh/ton) in the Filename «Input_Materials_Updated». The value of parameter 111.3 is a result of calculation on the base of Bio Diesel Sold (WB despatch Note) and conversion factor (0.14 t/ton) in the Filename «Input_Materials_Updated». The value of parameter 111.8 comes from WB Despatch Note in the Filename «Input_Materials_Updated». All they correspond to the «Technological Standards» of the Plant.	The additional information provided is sufficient. This CL is considered closed.
Clarification Request CL №6 Please provide additional information on how the values of parameters i.d. No 111.4 & 111.10 in the MR have been chosen?	Table 2, point 4.1	The both parameters come from assumption that for a conservative assumption the value is set on 800 km, because this is estimated as the maximal distance to the Bulgarian boundary	The additional information provided is sufficient. This CL is considered closed.
Clarification Request CL №7 Please provide evidence from the Regional Farmer Association (or elsewhere) about the values of parameter i.d. No 131.2 (Yrape,y; Ysunflower,y) for 2008 & 2009 (Filename: ASTRA_Emissions Reduction-08_09.xls ; Sheet 8 Data Recording ; line 14 & 15).	Table 2, point 4.1	An «Annex 3 - ABP Monitoring Plan – Farmers Questionnaire" was provided to the AIE during the First Periodic Verification, where value of parameters 131.2 are shown for the years 2008 and 2009.	The additional information provided is sufficient. This CL is considered closed.

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
Clarification Request CL №8 In the table "Input Raw Materials by Years" (filename: Input_Materials.xls; sheet: Summary) the value for Crude Oil for 12.2008 is zero. From the other side in sheet WB_Bills the registered quantity of Crude Oil for the same period is shown as 579 t. Please remove the discrepancy and correct the tables or provide additional explanation why the data for 12.2008 are not taken into account. Eventually correct Emission reductions calculation tables (Filename: ASTRA_Emissions Reduction-08_09.xls; sheets 3,5,6 & 8).	Table 2, point 5.1	In year 2008 Bio Diesel was produced only from Crude Oil because of technical problems. Crude oil (351 tons) used for producing of 353 tons Bio Diesel is delivered in advance (During the Months of October and November 2008). In the same time during the Month of December 2008 is delivered additional amount of Crude Oil (579 tons) used for refining and producing Refined Oil for commercial use. An amount of 56 tons from 579 tons is used for producing Bio Diesel sold in Romania (52 tons). That amount of 579 tons Crude Oil doesn't play any role in our case for calculation of the Emission reduction as far as for the Leakages emissions. Because of the above ASTRA suggest to be removed the amount of 579 tons Crude oil in the Filename "Input Materials". New Filename "Input Materials_Updated".	The explanation provided is sufficient. Necessary changes have been made in the file "Input Materials". New filename is "Input Materials_Updated". This CL is considered closed.
Clarification Request CL №9 The data for m_{rape} (i.d. No 111.7) and $m_{sunflower}$ (i.d. No 111.8) for 2008 (Filename: ASTRA_Emissions Reduction-08_09.xls; Sheet 6 Input) are not consistent with the relevant data in Sheet 5 Leakage Emissions, cells D38,D39. Please correct or provide additional explanation.	Table 2, point 5.1	The data for m_{rape} (i.d. No 111.7) and $m_{sunflower}$ (i.d. No 111.8) for 2008 (Filename: ASTRA_Emissions Reduction-08_09.xls; Sheet 6 Input) are wrong recorded by technical reason. **Those data are corrected** in the Filename: ASTRA_Emissions Reduction-08_09.xls_**Revised.**	The necessary corrections in the records have been made and reflected in the file "ASTRA_Emissions Reduction-08_09_Revised". The data are made consistent

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
			throughout the document. This CL is considered closed
Clarification Request CL №10 In the calculation table (Filename: ASTRA_Emissions Reduction-08_09.xls ; Sheet 6 Input, line 27) the parameter i.d. N 111.13 is designated as "Waste water per hour from biodiesel plant" but the unit used is tons per year. Please correct.	Table 2, point 5.1	According to the Monitoring Plan a conservative assumption is 4 tons per hour times 24 hours times 300 production days = 28.800 t each year (t/a). Fpllowing this, in the Filename: "ASTRA_Emissions Reduction-08_09.xls_Revised" ; Sheet 6 Input, line 27, an amount of 28800 t/a was recorded as constant value for both years.	Necessary corrections have been made and reflected in the file "ASTRA_Emissions Reduction-08_09_Revised". This CL is considered closed.
Clarification Request CL №11 In Table 3 of the MR please give reference to the exact location of the data source (i.e. IPPC.... , Volume..., Chapter..., Table....., etc.) where relevant.	Table 2, point 4.1	In Table 3 of the MR are given references to the exact location of the data sources in red colour. In the Filename «ASTRA_Monitoring Report -08-09_ver2.doc" are given references to the exact location of the data sources. All those additional information is written in Blue!	First conclusion: Fulfilled partially. The exact references to data from IPCC are still missing. For example: the correct source reference in Table 3: parameter 113.5 should be: "2006 IPCC Guidelines for national Greenhouse Gas Inventories; Volume 2; Chapter 1; Table 1.2". Second conclusion: Necessary corrections have

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
			been done and this CL was closed.
Clarification Request CL №12 Are computer control systems implemented in the different stages in the production of biodiesel? If yes please provide information about the hardware and software used.	Table 2, point 4.1	The Computer Control Systems are implemented in the following stages: Extraction, Refinery and Bio Diesel Production. Exstraction process is controled and monitored with software and hardware produced by «General Electric and FANUC» Ltd Refinery and Bio Diesel processes are controlled and monitored by software and hardware produced by "Schnaider Electric" SA	The additional information provided is sufficient. This CL is considered closed.
Clarification Request CL №13 In the Excel table (Filename: ASTRA_Emissions Reduction-08_09.xls) for the calculation of Emission Reductions please provide reference to the formulas in the MR used for calculation of basic parameters.	Table 2, point 5.1	The basic parameter for calculation of the Emission Reduction is the **Bio Diesel Sold in Bulgaria** (WB Dispatch Note, Delivered by, Delivered to and tons). On the base of the amount of Bio Diesel sold, the following parameters for that producing (necessary for production of 1 ton bio-diesel) are calculated: Rape; Sunflower; Crude Oil; Methanol; Hexane and Electricity. For calculation of the above parameters are used "Conversion Factors" based on Technological Standards of the Plant (Filename: "Input_Materials_Updated.xls). The numbers of formulas from the MR used for calculation of relevant basic parameters are added in additional columns in the following	First conclusion: Not corrected. The explanations given by the project owner are not relevant in this case. In all calculation tables (for Baseline emissions, Leakage, Project emissions and Emission reductions) an additional column should be added indicating the NUMBER of the formula in the MP used for the calculation of the relevant parameter.

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
		spreadsheets: "5 Leakage Emissions"; "4 Baseline Emissions"; "3 Project Emissions" and "2 Emissions Reduction".	All formulas in the MP are numbered correspondingly and it should be clear in the tables which formula is used for the calculation of the main parameters. Second conclusion: Necessary corrections have been done and this CL was closed.
Clarification Request CL №14 Please add in the MR a detailed scheme with the biodiesel distribution flows.	Table 2, point 4.1	Distribution Flow Chart (illustration 11)is added to the Monitoring Report on page 15.	The required detailed scheme was added to the MR on page 15.This CL is considered closed.
Clarification Request CL №15 Please provide detailed description of the Quality Management/Quality Assurance procedures related to the production of biodiesel.	Table 2, point 1.2	Refer to the «Annex II: QMS Description" of the Monitoring Report.	The required information was added in Annex II: QMS Description of the MR.This CL is considered closed.
Forward Action Request FAR №1 Please check implementation of Check 4 from the Monitoring Plan. Please also check the	Table 2, point 2.1	The answer of the one of the questions in the Annex 1 in the Monitoring Plan is "NO", which means that the Project is additional. The necessary evidences are provided to the AIE	To be checked during the next verification.

Report clarifications and corrective action requests	Ref. to checklist question in tables	Summary of project owner response	Verification conclusion
implementation of the requirements from „Law for renewable and alternative energy sources and bio fuels".		during the First Periodic Verification.	

APPENDIX B: VERIFICATION TEAM

The verification team consists of the following personnel:

Bureau Veritas Certification - Internal Technical Reviewer
Mr. Ashok Mammen - PhD (Oils & Lubricants).
Over 20 years of experience in chemical and petrochemical field. Dr. Mammen is a lead auditor for environment, safety and quality management systems and a lead verifier for GHG projects. He has been involved in the validation and verification processes of more than 60 CDM and other GHG projects."

Mr. Konstantin Rachev (KDR):
"Bureau Veritas Certification – Lead Auditor and Lead Verifier (M.Sc. Ecology)
He has 10 years of experience in environmental field, Mr. Rachev is a lead auditor for environment, safety and quality management systems and lead verifier for GHG projects (CDM Verifier / Lead Verifier Training Course held on February 25-29, 2008). He has been involved in the validation and verification processes of 10 CDM/VCS/JI projects since 2008.

Mr. Victor Bogdanov
"Bureau Veritas Certification – Auditor (M.Sc. Thermal & Nuclear Power Engineering)
He has 30 years of experience in power plants, combined cycle and renewable energy and struggle against global warming. Mr. Bogdanov has been involved in GHG reduction projects since 2008. Since that time he has accumulated an extensive experience in establishing PDD, baselines setting, monitoring plans, monitoring reports, GHG reductions estimation, investment and financial analysis of GHG abatement projects. He has participated as a consultant in 10 JI projects.