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VALIDATION REPORT OF THE PROGRAM OF ACTIVITIES

FIRA Wastewater Treatment System, Methane Capture and Utilisation Programme in Mexico.

REF: CV-11426-12 MEX

CLIENT:

Fideicomisos Instituidos en Relación con la Agricultura (F.I.R.A.)

DATE: (2013/01/29)

Reference No.	Date of first issue	Revision No.	Date of this revision
CV-11426-12 MEX	23/07/2012	04	29/01/2013
Client	Fideicomisos Instituidos en Relación con la Agricultura (F.I.R.A.)		
PoA - DD	FIRA Wastewater Treatment System, Methane Capture and Utilisation Programme in Mexico.		
Project Participant(s)	F.I.R.A Fideicomisos Instituidos en Relación con la Agricultura		
Project Location	Mexico		
Contact Person	Mrs. Ana Paulina Marin Castillo		
Operational Unit	Banca de Inversión y Nuevos Productos		

Applied Methodology/Version: AMS-III.H /version 16.0 AMS-I.C / version 19.0	Sectoral scope: 1 / 13 Technical area: 1.1 / 13.1
First PoA-DD Version: 01 Date of Issuance:30/04/2012 Starting Date of GSP:23/05/2012	Final PoA-DD Version: 02 Date of Issuance:07/08/2012
Estimated Annual Emission Reduction:	--

Summary:

Fideicomisos Instituidos en Relación con la Agricultura (hereinafter FIRA) has commissioned APPLUS+ LGAI to validate this PoA. The objective of the validation process is to have an independent, third party assessment of the proposed Programme of Activities (PoA) and the CDM Programme Activity (CPA) template with generic information applicable to all CPAs under that PoA and the associated CPA_001 Advanced wastewater treatment system at Casa San Matias CPA-DD against the applicable CDM requirements. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country issues and criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is considered essential in providing quality assurance for the project.

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed to in the Bonn Agreement and the Marrakech Accords.

The report and the annexed validation protocol describes a total of 6 findings which include:

- 2 Corrective Action Requests (CARs);
- 4 Clarification Requests (CLs);
- 0 Forward Action Requests (FARs).

The PP has responded these findings by modifying the project design, rectifying the PoA-DD and providing adequate additional explanations and evidences. Applus+ LGAI confirms that all the findings have been "closed out" before submitting the request for registration.

As a summary of the validation, the review of the PoA-DD and the subsequent follow-up interviews have provided Applus+ LGAI with sufficient evidence for the determination of the project's fulfilment with all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Therefore, Applus+ LGAI recommends the project for registration by the CDM Executive Board if the letters of approval of all Parties involved will be available before

the expiring date of the applied methodology or the applied methodology version respectively.

Validation Team	Roles	Organization
Miquel Picas Martínez	Lead Auditor / Team Leader	Applus+ LGAI
Adrián Ruíz Estrella	Trainee Auditor / Local Expert	Applus+ México
Agustín Salas Martínez	Trainee Auditor / Local Expert	Applus+ México (Subcontracted).
Miquel Sitjes Cabanas	Technical Reviewer	Applus+ LGAI

ABBREVIATIONS

Applus+ LGAI	LGAI Technological Center, S.A. (Applus+)
Applus+ México	Applus+ LGAI, México Branch
ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology Small Scale
BM	Build Margin
CAR	Corrective Action Request
CL	Clarification Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organization
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change
VVS	Clean Development Mechanism Validation And Verification Standard

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1 INTRODUCTION

1.1 OBJECTIVE

This validation concerns a small scale CDM Programme of Activities (hereinafter PoA) implemented by FIRA Wastewater Treatment System, Methane Capture and Utilisation Programme in Mexico, to reduce emissions of CO_2 by means of the development of the installation advanced wastewater and / or sludge treatment systems, in agro-industries such as the tequila, mescal, alcohol and dairy industries.

Fideicomisos Instituidos en Relación con la Agricultura (here_in_after_FIRA) has commissioned APPLUS+ LGAI_to_validate_this PoA. The objective of the validation process is to have an independent, third party assessment of the proposed Programme of Activities (PoA) and the CDM Programme Activity (CPA) template with generic information applicable to all CPAs under that PoA and the associated CPA_001 Advanced wastewater treatment system at Casa San Matias_CPA-DD against the applicable CDM requirements. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country issues and criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is considered essential in providing quality assurance for the project.

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed to in the Bonn Agreement and the Marrakech Accords.

1.2 SCOPE

The scope of the validation is to assess all aspects of GHG reduction involved in the project, including the project design, the baseline, the methane emissions, the determination of the emission factor of the grid to calculate the project emissions, and the procedures proposed for monitoring the emission reductions in the future.

A complete list of the documents and records that have been reviewed are listed on section 7 of this report.

The validation scope is defined as an independent and objective review of the PoA-DD, CPA_001 Advanced wastewater treatment system at Casa San Matias_CPA-DD and generic CPA-DD, 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. APPLUS+ LGAI, based on the Specific Instruction for the Processing and Conducting of Validation, Registration, Verification and Certification of Kyoto Protocol CDM Project Activities, has used a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consultancy services to the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the PoA-DD.

1.3 GHG PROJECT DESCRIPTION

The following description of the project as per PoA-DD was verified during the on-site audit:

The objective of the PoA is to promote advanced wastewater treatment for FIRA's clients, and all participants in agro-industrial sectors that generate methane emissions through open anaerobic treatment of wastewater containing biogenic organic matter, through carbon finance while reducing greenhouse gases emissions and promoting a cleaner environment.

As secondary goals are the reductions of odours, contamination of surface, underground water sources, and improvement of community hygiene (pathogens reductions).

Applus+ LGAI confirms that the project activity meets the eligibility criteria for small-scale programmes of activities.

2 METHODOLOGY

The project assessment is based on the "Clean Development Mechanism Validation And Verification Standard" version 02 and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CDM project activity are appointed. Once the project is made available for the global stakeholder consultation process, the members of the assessment team carried out:

I. A desk review of the project design documentation;
II. Follow-up interviews with project stakeholders;
III. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The prepared validation report and other supporting documents then undergo an internal quality control before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ LGAI has developed a specific protocol customized for the project. The protocol demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol consists of three tables. The different columns in these tables are described in the tables below.

Validation Protocol Table 1: Mandatory Requirements			
Requirement	Reference	Conclusion	Cross reference
The requirements which the projectmust meet.	Gives reference to the legislation or agreement where the requirement is found.	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 Validation report.	Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.

Validation Protocol Table 2: Requirement checklist				
Checklist Question	Reference	Comment	Draft Conclusion	Final Conclusion
The various requirements in Table 2 are linked to checklist questions the project should meet. The checklist is organized in seven different sections. Each	Gives reference to documents where the answer to the checklist question or item is found.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further	Conclusions are presentedbased on the assessment of the first PDD version. This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification is used	Conclusions are presentedin the same manner based on the assessment of the final PDD version and further documents

section is then further sub-divided. The lowest level constitutes a checklist question.		used to explain the conclusions reached.	when the validation team has identified a need for further clarification. **Forward action request** to highlight issues related to project implementation that require review during the first verification	including assumptions presented in the documentation.

Validation Protocol Table 3: Resolution of Audit Findings				
Type:	☐ **CAR** ☐ **CL** ☐ **FAR**		**Number:**	
Raised by:		**Ref. to checklist in table 1&2:**		
Description of the audit finding			**Date:**	
The description of the audit finding should be clearly included here.				
Project Participant's response			**Date:**	
Theresponsesgiven by the project participants during the communications with the validation team should be included here.				
Documentation provided as evidence by Project Participant				
The evidences provided by the project participants should be included here.				
Auditor's assessment comment			**Date:**	
This section should include how the audit finding is assessed by the assessment team.				
Conclusion by Lead Auditor			**Date:**	
The conclusion made by the Lead Auditor should be included here.				

FINDINGS OVERVIEW

	CARs	CLs	FARs
Total Number raised	2	4	0

Type:	☒ **CAR** ☐ **CL** ☐ **FAR**		**Number:**	1
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		A.2.6
Description of the audit finding			**Date:**	23/07/2012
Please provide the Modalities of Communication to the DOE.				
Project Participant's response			**Date:**	20/08/2012
Modalities of Communication are provided to the DOE according to the referenced evidence.				
Documentation provided as evidence by Project Participant				
View file "P126_VAL_099.pdf"				
Auditor's assessment comment			**Date:**	14/09/2012
PP has provided the Modalities of Communication using the F-CDM-MOC v02.1 where F.I.R.A (Fideicomisos Instituidos en Relación con la Agricultura) is nominated as the Focal Point Entity, also the form is signed by Enrique Soto Guerra and Ana Marin Castillo.				
Conclusion by Lead Auditor			**Date:**	14/09/2012
After the revision of the MoC provided, the CAR is considered CLOSED OUT.				

Type:	☒ **CAR** ☐ **CL** ☐ **FAR**		**Number:**	2
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		B.2.3
Description of the audit finding			**Date:**	23/07/2012
Provisions regarding the updating of the CPAs in case of held or withdraw of the methodologies shall be taken into account.				
Project Participant's response			**Date:**	20/08/2012
It has been included in section B.3. of the PoA provisions regarding the updating of the CPAs in case of held or withdraw of the CDM methodologies, as follows: "*During the validation phase, in case the applied approved methodology is revised or replaced, subsequent to being placed on hold, the CME will update the eligibility criteria to the requirements of the revised or new methodology with immediate effect. A new version of the F-CDM-SSC-PoA-DD and furtherF-CDM-SSC-CPA-DD documents containing updated eligibility criteria validated by a DOE will be submitted for approval.* *Such revisions are not required in cases where a methodology is revised without being placed on hold or withdrawn.*"				
Documentation provided as evidence by Project Participant				
P126_VAL_104				
Auditor's assessment comment			**Date:**	14/09/2012
As indicated by PP, in PoA-DD version 02 it has been indicated in section B.3.				
Conclusion by Lead Auditor			**Date:**	14/09/2012
After reviewing the modification made in the PoA-DD, the CAR is considered CLOSED OUT.				

Type:	☐ **CAR** ☒ **CL** ☐ **FAR**		**Number:**	1
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		A.2.1
Description of the audit finding			**Date:**	23/07/2012
Please indicate whether FIRA is a private or a public entity.				
Project Participant's response			**Date:**	20/08/2012
It has been indicated in section A.2 and section A.4 of the F-CDM-SSC-PoA-DD version 02 that FIRA, which is the four trust funds FONDO, FEFA, FEGA and FOPESCA, can be considered as public entity(ies).				
Documentation provided as evidence by Project Participant				
P126_VAL_104				
Auditor's assessment comment			**Date:**	14/09/2012
As stated by PP, in sections A.2 and A.4 of the PoA-DD version 02, it is indicated that FIRA is a public entity.				
Conclusion by Lead Auditor			**Date:**	14/09/2012
After reviewing the modification made in PoA-DD, the clarification is considered COLSED OUT.				

Type:	☐ **CAR** ☒ **CL** ☐ **FAR**		**Number:**	2
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		B.5.2.2
Description of the audit finding			**Date:**	23/07/2012
Please incorporate other laws and regulations that applicable to the PoA or will be applicable to the CPAs. i.e. General Law of Ecologic Balance and Environment Protection, National Waters Law and its regulation.				
Project Participant's response			**Date:**	20/08/2012

In section B.1 of the F-CDM-PoA-DD version 02 , it has been included the laws and regulations applicable to the CPAs (. i.e. General Law of Ecologic Balance and Environment Protection, National Waters Law and its regulation), in resume: *"Environmental legislation associated with livestock operations in Mexico is framed by General de Equilibrio Ecológico y Protección al ambiente, LGEEPA "General Law for Ecological Equilibrium and Environmental Protection", enacted in 1988. This law establishes that wastewater discharges from industrial, municipal, agriculture and livestock sectors (among others) are subject to federal and local regulation (Article 120). Also, wastewater discharges to sewage systems in populated areas, to water bodies, and those that are spilled on the soil or are infiltrated into the ground should comply with the necessary conditions to prevent water and land pollution.* *To this end, and according to the Ley de Aguas Nacionales, LAN "National Water Law", the National Water Commission (CONAGUA according to its Spanish acronym), in coordination with state and municipal governments, is responsible for setting the conditions on wastewater discharges, for issuing permits and licenses for water use and discharge, and for drafting and enforcing the corresponding Mexican Official Standards. With regard to wastewater discharges applicable to industrial operations, SEMARNAT has set up two environmental standards: NOM-001-SEMARNAT-1996, which sets the maximum pollution limits for wastewater discharge into water bodies."*		
Documentation provided as evidence by Project Participant		
• *General Law for Ecological Equilibrium and Environmental Protection ("Ley General de Equilibrio Ecológico y Protección al ambiente", LGEEPA) can be consulted at :* <www.diputados.gob.mx/LeyesBiblio/pdf/148.pdf> • *National Water Law ("Ley de Aguas Nacionales", LAN) can be consulted at :* <http://www.diputados.gob.mx/LeyesBiblio/pdf/16.pdf> • *NOM-001-SEMARNAT-1996 can be consulted at:* <http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/agenda/DOFsr/DO2776.pdf>		
Auditor's assessment comment	**Date:**	14/09/2012
As indicated by PP, it has been updated the PoA-DD including the mentioned Laws and Regulations in version 02.		
Conclusion by Lead Auditor	**Date:**	14/09/2012
After reviewing the modification made in PoA-DD, the clarification is considered COLSED OUT.		

Type:	☐ **CAR** ☒ **CL** ☐ **FAR**		**Number:**	3
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		B.5.2.4
Description of the audit finding			**Date:**	23/07/2012
Please provided documents that support the explanation of the barrier due to prevailing practice (i.e. baseline assessment performed by EcoSecurities, average diesel price 2010; CER price estimation)				
Project Participant's response			**Date:**	20/08/2012
The evidence is listed as indicated (below).				
Documentation provided as evidence by Project Participant				

Prevailing practice • *FIRA's Common Practice Study:* File "P126_VAL_118.pdf" • http://www.oportunidadesdenegocios.com.mx/texto.asp?id_noticia=4515933, or file "P126_VAL_127.pdf" • http://www.mexicosgreatestbrands.org/Vol4/pdf/JoseCuervo.pdf, or file "P126_VAL_128.pdf" • http://www.inforural.com.mx/imprimir.php?id_rubrique=252&id_article=60714, or file "P126_VAL_129.pdf" • http://www.tequilasdonrafael.com/web/a_noticias.php?id_noticia=66#, or file "P126_VAL_130.pdf" • http://investors.brown-forman.com/phoenix.zhtml?c=98415&p=irol-newsArticle&ID=951829&highlight=, or file "P126_VAL_131.pdf" • http://beamglobal.pixel.us.com/news/49-beam-appoints-veteran-marketing-executive-debora-boyda-as-mixables-general-manager, or file "P126_VAL_132.pdf" • *DIAGNOSTICO RED AGAVE 2009 FEB, FIRA (02/2009)* :File "P126_VAL_029.pdf" • *Proyecto MDL en la Industria del Tequila en Jalisco. Informe sobre Procesos Industriales en las Principales Empresas. 29/03/11* : File "P126_VAL_028.pdf" • *IGES CDM Project Data Analysis & Forecasting CER Supply :* can be consulted athttp://www.iges.or.jp/en/cdm/report_cdm.html		
Auditor's assessment comment	**Date:**	14/09/2012
As listed above, PP has provided the evidences that support the prevailing practice.		
Conclusion by Lead Auditor	**Date:**	14/09/2012
After receiving the evidences the Clarification is considered CLOSED OUT		

Type:	☐ **CAR** ☒ **CL** ☐ **FAR**		**Number:**	4
Raised by:	Miquel Picas	**Ref. to checklist in table 1&2:**		B.6.2.2
Description of the audit finding			**Date:**	23/07/2012
Please modify the source of the following data: • $B_{o,ww}$ • UF_{BL} • $MCF_{ww,treatment,PJ,k}$				
Project Participant's response			**Date:**	20/08/2012
The Source of datafor these parameters has been modified as follows. • $B_{o,ww}$ =Value obtained from AMSIII.H methodology version 16 , page 6/32 (IPCC value). • UF_{BL} = Value obtained from AMSIII.H methodology version 16 , page 6/32. • $MCF_{ww,treatment,PJ,k}$ = Value(s) obtained from Table III.H.1 of the AMSIII.H methodology version 16, in page 6/32.				
Documentation provided as evidence by Project Participant				
P126_VAL_104				
Auditor's assessment comment			**Date:**	14/09/2012
Source of data and parameters has been modified in PoA-DD v02.				
Conclusion by Lead Auditor			**Date:**	14/09/2012
After reviewing the modifications made, the clarification is considered CLOSED OUT.				

2.1 APPOINTMENT OF THE AUDIT TEAM

According to the sectoral scopes / technical area and experiences in the sectoral or national business environment, Applus+ LGAI has composed a project validation team in accordance

with the appointment rules in Applus+ LGAI. The composition of audit team has to be approved by the Applus+ LGAI ensuring that the required skills are covered by the team. The four qualification levels for team members that are assigned by formal appointment rules as below:

- Leader Auditor (LA)
- Auditor (A)
- Auditor Trainee (T)
- Technical Experts (E)

It is required that the sectoral scope / technical area linked to the methodology has to be covered by the assessment team.

Name	Qualification	Scope coverage	Technical Area coverage	Financial aspect	Host Country experience
Miquel Picas	LA	Yes	Yes	Yes	Yes
Adrián Ruíz	T	Yes	Yes	No	Yes
Agustín Salas	T	Yes	Yes	No	Yes

Technical Reviewer:

- Miquel SITJES CABANAS

The curricula vitae of the DOE's validation team members are provided below:

Miquel Picas Martinez (B. Sc. Degree in Environmental Science, Farleigh Dickinson University, NJ, USA) He has 10 of work experience in quality and environmental management systems consultancy and auditing, since he joined Applus+ LGAI he has performed quality and environmental audits and CDM, VCS, greenhouse gases verifications and others. He also worked in the Spanish Construction industry for 3 years as Quality, Environmental and Health and Safety Manager.

Adrián Ruiz Estrella (Degree in Environmental Technology Engineering, Technological University of Nezahualcóyotl – México). He has 13 years of experience in conformity assessment in both voluntary and mandatory standards in different industrial and service sectors both public and private organizations. Is a Lead Auditor appointed by Applus+ México, verifier of ISO 9001/ISO14001/OSHAS18000. Before he joined Applus+ México, he had been worked in assessments of Corporate Social Responsibility and for certification bodies Calmecac, ANCE, GL, IQS as Lead Auditor for 10 years.

Agustín Salas Martínez (Industrial Engineering in Chemistry – Instituto Politécnico Nacional – Mexico). He has over 15 years of work experience in quality and environmental management systems consultancy and auditing enrolled in different certification bodies such as Calidad Mexicana Certificada, AC and AENOR de México, SA de CV. During his stage at AENOR hi had participated in various validations of project activities under the CDM requirements. Since the second half of 2011 he works as Free-lance and collaborates with Applus + LGAI among other certification bodies.

Miquel Sitjes Cabanas (B. Sc. degree in Chemistry 1975, Universidad de Barcelona – Spain). He has 15 years of experience in a Spanish chemical group company specialized in the manufacturing of raw chemical products, where he worked as the Manager of Quality Control, Production Manager and Environmental Manager. He also worked in the Spanish pharmaceutical industry for 7 years as Quality, Manufacturing and Environmental Manager. He has been working in the Applus+ LGAI Technological Centre since 1999: he started working there as an auditor (quality, environment, CDM, VCS, greenhouse gas verification and others) and since 2006 he has been the Systems Certification Technical Manager.

2.2 DOCUMENT REVIEW

The PoA-DD, Advanced wastewater treatment system at Casa San Matias CPA-DD and generic CPA-DD submitted by the PPs were reviewed against the approved methodology and against CDM and other relevant criteria. Additional background documents related to the project design, baseline and financial analysis were also made available before and during the on-site visit in Mexico.

To address the corrective actions and clarification requests that arose from the desk review and on-site visit, the consultants revised the initial project design documents submitted and developed the final PoA-DD and CPA-DD.

The reviewed documents used during the validation process are listed in section 7 of this report.

2.3 FOLLOW-UP INTERVIEWS

During the period of 02, 03 and 04 July 2012, Applus+ LGAI performed interviews, telephone conferences, and physical site inspection with project stakeholders to confirm selected information and to resolve issues identified in the document review. The main topics of interviews are summarized in following table.

INTERVIEWED ORGANIZATION/PERSONNEL	INTERVIEW TOPICS
F.IR.A. / ~~Éric~~ Erick Rodríguez	Letter of Approval. Starting date of the PoA. Implementation of the monitoring plan. Operational management and verification plan. Criteria for the inclusion of SSC-CPA in the PoA.
F.I.R.A. / Adriana Ruggiero	
F.I.R.A. / Maria de la Paz Luna	
F.I.R.A. / María Teresa Romero	
CO_2 Solutions / Carlos González	PoA-DD, baseline methodology, baseline identification, baseline emissions, project emissions, emission reductions, monitoring plan.

2.4 RESOLUTION OF CLARIFICATION AND CORRECTIVE ACTION REQUEST

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which needs to be clarified for Applus+ Applus+ LGAI's positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by Applus+ LGAI were resolved during communications between the Client and Applus+ LGAI to guarantee the transparency of the validation process, the concerns raised and responses given are summarized in Section2above and documented in more detail in the validation protocol as attached.

The final PoA-DD version submitted in August 2012 serves as the basis for the final assessment presented. Additional changes to the project during the validation process are not considered to be significant with respect to the main CDM objectives. The two CDM main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

2.5 INTERNAL QUALITY CONTROL

As final step of a validation the final documentation including the validation report and the protocol have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the audit team approval can only be given by the other one.

After confirmation of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

3 VALIDATION FINDINGS

In the following sections the findings of the validation are stated. The validation findings for each validation subject are presented as follows:

1) The findings from the desk review of the original project design document and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Validation Protocol in Annex A.
2) Where Applus+ LGAI had identified issues that need clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Annex A.
3) Where Clarification or Corrective Action Requests have been issued, the exchanges between the Client and Applus+ LGAI to resolve these Clarification or Corrective Action Requests are summarized.
4) The conclusions for validation subject are presented.
5) The final validation findings relate to the project design as documented and described in the revised and resubmitted project design documentation.

3.1 APPROVAL

The Letter of Approval from the Mexican DNA has been provided to the validation team directly by the project participants. The LoA was issued on 15/06/2012 (No. 308/2012) by the Interministerial Commission on Climate Change (ICC). APPLUS+ LGAI confirms that the LoA states the following:

- Mexico is a Party of the Kyoto Protocol.
- Mexico voluntarily participates in the CDM and confirms that FIRA Wastewater Treatment System, Methane Capture and Utilisation Programme in Mexicocontributes to Mexico's sustainable development and the voluntary participation of FIRA.
- The LoA refers to the precise proposed CDM project activity title in the PoA-DD being submitted for registration.

APPLUS+ LGAI confirms that the LoAs from Mexico has been issued by the Party's designated national authority and does not doubt the authenticity of the letters of approval received from the PPs; hence APPLUS+ LGAI confirms that the LoA is in compliance with CDM requirements. In addition, the validation team of APPLUS+ LGAIconsulted the Mexican DNA which confirmed the award of the LoA for the proposed PoA.

The validation did not reveal any information that indicates that the programme can be seen as a diversion of ODA funding towards Mexico

3.2 PARTICIPATION

Mexico is involved in the project.

The host Party Mexico ratified the Kyoto Protocol on 7 September 2000 and has appointed a DNA.

The PoA CME (Coordinating and Managing Entity) is FIRA, which is authorized as Mexican´s Project Participant and authorized by the host Party Mexican DNA as the Coordinating and Managing Entity. All project participants have been listed in section A.3 of the final PoA-DD. Information regarding project participants is confirmed as consistent in the latest PoA-DD and Advanced wastewater treatment system at Casa San Matias CPA-DD.

APPLUS+ LGAI confirms that no entities other than those approved as project participants are included in the final PoA-DD.

3.3 PROJECT DESIGN

Due to the clarifications and corrective actions requested during the validation process, the project participants made a final version of the PoA-DD dated 07/08/2012 and the Generic CPA-DD, which include corrections or clarifications to all issues raised.

The PoA-DD and the Generic CPA-DD are in compliance with relevant form and guidance as provided by UNFCCC. The most recent version of the forms under VVS Track is used.

APPLUS+ LGAI considers that the guidelines for the completion of the PoA documents in their most recent version have been followed. Relevant information was provided by the Managing entity and/ or project participants in the applicable PoA sections. Completeness was assessed through the protocol included in Annex A.

3.4 PROGRAMME DESCRIPTION

The following description of the project as per PoA-DD, generic CPA-DD and CPA_0001 Advanced wastewater treatment system at Casa San Matias could be verified during the on-site visit:

The PoA Mexico has as objective the developing of advance wastewater treatment for all participants in agro-industrial sectors that generate methane emissions through open anaerobic treatment of wastewater containing biogenic organic matter in Mexico. Through the managing entity FIRA, the programme aims to incentivize the development and implementation of advanced wastewater treatment with the objective of methane captureand destruction facilities in Mexico.

Under the proposed Programme, the promoters of wastewater treatment and methane capture and destruction anticipate the advantages in jointly overcoming the hurdles and uncertainties faced by small renewable project developers in Mexico.

The programme and its coordinating entity thereby aim to contribute to the reduction of the methane emissions by flaring it, and or combusted for energy purpose in Mexico.

The PoA CME has confirmed that there is no diversion of ODA involved. The starting date of the proposed PoA is s properly defined as 15 May 2012 and it is justified in section 3.6.1 of this report. The length of PoA is taken as 28 years.

The information presented in the PoA documents on the technical design is consistent with the actual planning and implementation of the project activity confirmed in the following ways:

- A review of data and information (see section 7)
- An on-site visit to the place where the associated real case CPA is being implemented and interview with relevant stakeholder and personnel with knowledge of the project in attendance
- A review of information related to similar projects or technologies which have been used to validate the accuracy and completeness of the project description.

In conclusion, APPLUS+ LGAI confirms that the PoA project description, as included in the PoA-DD, is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 BASELINE METHODOLOGY

The PoA-DD describes the baseline methodology, which is in conformance with the approved baseline methodologies AMS-III.H "Methane recovery in wastewater treatment" version 16.0 and AMS-I.C "Thermal energy production with or without electricity" version 19.0.

In addition, the PoA-DD refers and uses the following tools:

- "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" - Version 1.
- "Emissions from solid waste disposal sites" – Version 06.0.1
- "Project emissions from flaring" - Version 2.

- "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" – Version 2
- "Tool to determine the baseline efficiency of thermal or electric energy generation systems" – Version 1.

The PoA applies to a valid version of a CDM Methodology approved by the EB. By means of cross check it can be confirmed that the applied methodology is directly derived from the methodologies section on the CDM http://cdm.unfccc.int/index.html. The PoA meets all applicability conditions of the applied methodology and all methodology components referred to in the applied methodology. Beyond this, the proposed PoA meets all the other possible requirements or stipulations mentioned in all sections of the selected methodology.

Furthermore the programme of activities is not expected to result in significant emissions, related to both project and leakage, other than those listed in the methodology. In summary it has been assessed that the PoA applies a valid version of an approved CDM methodology and that the methodology is applicable to the programme.

3.5.1 APPLICABILITY OF THE SELECTED METHODOLGY TO THE PROGRAMME OF ACTIVITIES

The selected baseline and monitoring methodologies used for the Programme of Activities are AMS-III.H and AMS-I.C, which are valid from 26 November 2010 and 3 June 2011 respectively onwards and was previously approved by the CDM Executive Board.

The AMS-III.H methodology is applicable to the Programme of Activities, because:

1. This methodology comprises measures that recover biogas from biogenic organic matter in wastewater by means of one, or a combination, of the following options: (a-f) The CPA under the proposed Programme will involve d) Introduction of biogas recovery and combustion to an anaerobic wastewater treatment system such as anaerobic reactor, lagoon, septic tank or an on-site industrial plant, or the measure f): Introduction of a sequential stage of wastewater treatment with biogas recovery and combustion, with or without sludge treatment, to an anaerobic wastewater treatment system without biogas recovery.

2. In cases where baseline system is anaerobic lagoon the methodology is applicable if:
   (a) The lagoons are ponds with a depth greater than two meters, without aeration. The value for depth is obtained from engineering design documents, or through direct measurement, or by dividing the surface area by the total volume. If the lagoon filling level varies seasonally, the average of the highest and lowest levels may be taken;
   (b) Ambient temperature above 15°C, at least during part of the year, on a monthly average basis;
   (c) The minimum interval between two consecutive sludge removal events shall be 30 days.
   Each CPA is expected to have a baseline system of an open anaerobic pond. Each CPA will provide the characteristics of the pond depth, ambient temperature and sludge removal events to demonstrate that they comply with the stated requirements.

3. The recovered biogas from the above measures may also be utilized for the following applications instead of combustion/flaring: (a-e)
   The recovered biogas will be flared, used for thermal energy generation directly, and/or used for electricity energy generation directly, although emission reductions will not be claimed for the last option.

4. If the recovered biogas is used for project activities covered under paragraph 3 (a), that component of the project activity can use a corresponding methodology under Type I.

In relevant cases, AMS-I.C will be applied. In the case of electricity generation, no emission reductions will be calculated and no second methodology will be applied.

5. For project activities covered under paragraph 3(b), if bottles with upgraded biogas are sold outside the project boundary, the end-use of the biogas shall be ensured via a contract between the bottled biogas vendor and the end-user. No emission reductions may be claimed from the displacement of fuels from the end use of bottled biogas in such situations. If however the end use of the bottled biogas is included in the project boundary and is monitored during the crediting period CO_2 emissions avoided by the displacement of fossil fuel can be claimed under the corresponding Type I methodology, e.g. AMS-I.C .Thermal energy production with or without electricity.
   There are no activities expected to be covered under paragraph 3(b).
6. For project activities covered under paragraph 3 (c) (i), emission reductions from the displacement of the use of natural gas are eligible under this methodology, provided the geographical extent of the natural gas distribution grid is within the host country boundaries.
   No activities covered under paragraph 3(c) (i) will be either covered nor carried out
7. For project activities covered under paragraph 3 (c) (ii), emission reductions for the displacement of the use of fuels can be claimed following the provision in the corresponding Type I methodology, e.g. AMS-I.C.
   No activities covered under paragraph 3(c) (ii) will be either covered nor carried out
8. In particular, for the case of 3 (b) and (c) (iii), the physical leakage during storage and transportation of upgraded biogas, as well as the emissions from fossil fuel consumed by vehicles for transporting biogas shall be considered. Relevant procedures in paragraph 11 of Annex 1 of AMS-III.H .Methane recovery in wastewater treatment shall be followed in this regard.
   No activities covered under paragraph 3(b) and 3(c) will be neither covered nor carried out.
9. For project activities covered under paragraph 3 (b) and (c), this methodology is applicable if the upgraded methane content of the biogas is in accordance with relevant national regulations (where these exist) or, in the absence of national regulations, a minimum of 96% (by volume).
   No activities covered under paragraph 3(b) and 3(c) will be either covered or carried out.
10. If the recovered biogas is utilized for the production of hydrogen (project activities covered under paragraph 3 (d)), that component of the project activity shall use the corresponding methodology AMS-III.O .Hydrogen production using methane extracted from biogas.
    No activities covered under paragraph 3(d~~) will~~) will be ~~either covered nor~~either covered or carried out, hence they ~~are not~~are not applicable.
11. If the recovered biogas is used for project activities covered under paragraph 3 (e), that component of the project activity shall use corresponding methodology AMS-III. AQ. Introduction of Bio-CNG in road transportation.
    No activities covered under paragraph 3(e~~) will~~) will be either covered nor carried out, hence they are not applicable.
12. New facilities (Greenfield projects) and project activities involving a change of equipment resulting in a capacity addition of the wastewater or sludge treatment system compared to the designed capacity of the baseline treatment system are only eligible to apply this methodology if they comply with the relevant requirements in the "General guidelines to SSC CDM methodologies". In addition the requirements for demonstrating the remaining lifetime of the equipment replaced, as described in the general guidelines shall be followed.

An SSC-CPA in a new facility or contemplating a capacity addition will comply with the relevant guidelines, and the requirements for demonstrating the remaining lifetime of the equipment replaced shall be followed

13. The location of the wastewater treatment plant as well as the source generating the wastewater shall be uniquely defined and described in the PDD.
    Each SSC-CPA will describe the relevant location(s) and source(s) of wastewater in its SSC-CPA-DD

14. Measures are limited to those that result in aggregate emissions reductions of less than or equal to 60kt CO_2 equivalent annually from all Type III components of the project activity.
    The PoA primarily targets medium- and small-size facilities; hence the emission reductions from the Type III component will not exceed 60,000 tCO_2e per annum. Each SSC-CPA will demonstrate individually its compliance with the SSC limit.

The AMS-I.C methodology is applicable to the Programme of Activities, because:

1. This methodology comprises renewable energy technologies that supply users with thermal energy that displaces fossil fuel use. These units include technologies such as solar thermal water heaters and dryers, solar cookers, energy derived from renewable biomass and other technologies that provide thermal energy that displaces fossil fuel.
   The activity will utilize biogas captured from anaerobic wastewater treatment system to replace fossil fuel in thermal energy applications

2. Biomass-based cogeneration systems are included in this category. For the purpose of this methodology .cogeneration. shall mean the simultaneous generation of thermal energy and electrical energy in one process. Project activities that produce heat and power in separate element processes (for example heat from a boiler and electricity from a biogas engine) do not fit under the definition of cogeneration project.
   Biomass-based activities are not eligible under the PoA; not relevant

3. Emission reductions from a biomass cogeneration system can accrue from one of the following activities:
   (a) Electricity supply to a grid;
   (b) Electricity and/or thermal energy (steam or heat) production for on-site consumption or for consumption by other facilities;
   (c) Combination of (a) and (b).
   Biomass-based activities are not eligible under the PoA; not relevant

4. The total installed/rated thermal energy generation capacity of the project equipment is equal to or less than 45 MW thermal (see paragraph 6 for the applicable limits for cogeneration project activities).
   The maximum installed capacity possible using biogas would be approximately 4.57 MWe . Hence the installed capacity is not expected to exceed 45 MW thermal; however, when relevant this will be demonstrated by the individual CPA in the CPA-DD.

5. For co-fired systems, the total installed thermal energy generation capacity of the project equipment, when using both fossil and renewable fuel shall not exceed 45 MW thermal (see paragraph 6 for the applicable limits for cogeneration project activities).
   In case of a co-fired system, the individual SSC-CPA will demonstrate compliance with this requirement.

6. The following capacity limits apply for biomass cogeneration units: (a-c)
   Biomass-based activities are not eligible under the PoA; not relevant

7. The capacity limits specified in the above paragraphs apply to both new facilities and retrofit projects. In the case of project activities that involve the addition of renewable energy units at an existing renewable energy facility, the total capacity of the units

added by the project should comply with capacity limits in paragraphs 4 to 6 and should be physically distinct from the existing units.
The PoA contemplates new renewable energy generation only; not relevant

8. Project activities that seek to retrofit or modify an existing facility for renewable energy generation are included in this category .
The PoA contemplates new renewable energy generation only; not relevant

9. New Facilities (Greenfield projects) and project activities involving capacity additions compared to the baseline scenario are only eligible if they comply with the related and relevant requirements in the "General Guidelines to SSC CDM methodologies".
A SSC-CPA in a new facility or contemplating a capacity addition will comply with the relevant guidelines.

10. If solid biomass fuel (e.g. briquette) is used, it shall be demonstrated that it has been produced using solely renewable biomass and all project or leakage emissions associated with its production shall be taken into account in the emissions reduction calculation.
Only biogas-based activities are eligible under the PoA; not relevant

11. Where the project participant is not the producer of the processed solid biomass fuel, the project participant and the producer are bound by a contract that shall enable the project participantto monitor the source of the renewable biomass to account for any emissions associated with solid biomass fuel production. Such a contract shall also ensure that there is no double-counting ofemission reduction.
Only biogas-based activities are eligible under the PoA; not relevant

12. In case electricity and/or steam/heat produced by the project activity is delivered to another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the energy will have to be entered into that ensures there is no double-counting of emission reductions.
This case is not foreseen under the PoA; however if it occurs, the appropriate contract will be put in place

13. If the project activity recovers and utilizes biogas for power/heat production and applies this methodology on a standalone basis i.e. without using a Type III component of a SSC methodology, any incremental emissions occurring due to the implementation of the project activity (e.g. physical leakage of the anaerobic digester, emissions due to inefficiency of the flaring), shall be taken into account either as project or leakage emissions.
This methodology will only be used in conjunction with a Type III methodology in this PoA.

14. Charcoal based biomass energy generation project activities are eligible to apply the methodology only if the charcoal is produced from renewable biomass sources provided: (a-b)
Charcoal-based activities are not eligible under the PoA; not relevant

APPLUS+ LGAI confirms the applicability of the selected methodology to the Programme of Activities. The latest version of the PoA-DD adequately describes the different applicability conditions of the methodology and no deviation from the methodology has been necessary.

The Programme of Activities is not expected to result in emissions other than those allowed by the methodology, and there are no greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed CDM project activity which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.

3.5.2 PROGRAMME BOUNDARY

The boundaries (geographically and related to GHG sources / sinks) are correctly given in section A.5 of the PoA-DD. The geographical boundary of this PoA is the geographical area of Mexico.

As per AMS-III.H version 16.0, the boundary of the CPA of this PoA is "the physical, geographical site where the wastewater and sludge treatment takes place, in the baseline and project situations. It covers all facilities affected by the project activity including sites where processing, transportation and application or disposal of waste products as well as biogas generation takes place" .The information has been also correctly given in section A.5 of the real case CPA-DD.

For CPA applying the methodology AMS-I.C, the project boundary also includes all plants generating heat located at the project site, whether fired with biomass, fossil fuels or a combination of both, and industrial, commercial or residential facility, or facilities, consuming energy generated by the system and the processes or equipment affected by the project activity.

The physical delineation of the CPA under the PoA and the description of the emission sources and GHGs that are included in the CPA boundary are appropriate for the purpose of calculating project and baseline emissions for each CPA.

In addition, all emission sources and GHGs related included and excluded from the project boundary are clearly identified and described in a complete manner in the latest version of the PoA-DD.

The validation team states that the identified boundary and the selected sources and gases are correctly justified by the project proponent in the PoA-DD, and they are in accordance with the methodologies AMS-III.H and AMS-I.C.

3.5.3 BASELINE IDENTIFICATION

Regarding the baseline identification, according to the methodology AMS-III.H version 16.0, the baseline scenario is the methane emissions that would have been emitted by the baseline wastewater treatment system and the carbon dioxide emissions on account of fossil fuel used for the baseline wastewater treatment facility. The specific baseline scenario is an anaerobic wastewater treatment system such as anaerobic reactor, lagoon, septic tank or an on-site industrial plant.

For a SSC-CPA applying AMS-I.C version 19.0, the simplified baseline for renewable energy technologies that displace technologies using fossil fuels is the fuel consumption of the technologies that would have been used in the absence of the project activity, times an emission factor for the fossil fuel displaced.

The validation team hereby confirms that the selected AMS-III.H version 16.0 "Methane recovery in wastewater treatment" and AMS-I.C version 19.0 "Thermal energy production with or without electricity" are previously approved by the CDM Executive Board, and are applicable to this programme of activities (PoA), which complies with all the applicability conditions therein.

3.5.4 ALOGARITHMS AND/OR FORMULAE USED TO DETERMINE EMISSION REDUCTIONS

3.5.4.1 BASELINE EMISSIONS

Since there are two possible baseline scenarios are considered in the Programme of Activities, depending on whether the component involves thermal energy production or not, the following formulae shall be applied.

In accordance with AMS-III.H baseline emissions are calculated as follows:

$$BE_y = \{BE_{power,\,y} + BE_{ww,\,treatment,\,y} + BE_{s,\,treatment,\,y} + BE_{ww,\,discharge,\,y} + BE_{s,\,final,\,y}\}$$

Where:

BE_y	Baseline emissions in year y (tCO_2e)
$BE_{power,\,y}$	Baseline emissions from electricity or fuel consumption in year y (tCO_2e)
$BE_{ww,\,treatment,\,y}$	Baseline emissions of the wastewater treatment systems affected by the project activity in year y (tCO_2e).
$BE_{s,\,treatment,\,y}$	Baseline emissions of the sludge treatment systems affected by the project activity in year y (tCO_2e).
$BE_{ww,\,discharge,\,y}$	Baseline emissions from degradable organic carbon in treated wastewater discharged into sea/river/lake in year y (tCO_2e). The value of this term is zero for the case 1(b).
$BE_{s,\,final,\,y}$	Baseline methane emissions from anaerobic decay of the final sludge produced in year y (tCO_2e). If sludge is controlled combusted, disposed in a landfill with biogas recovery, or used for soil application in the baseline scenario, this term shall be neglected.

As expected CPAs will not be based on sludge treatment, and wastewater will not be discharged into sea/river/lake, and sludge is not expected to be combusted or disposed in a landfill with gas recovery, the baseline emissions for the proposed PoA are calculated as follows:

$$BE_y = \{BE_{power,\,y} + BE_{ww,\,treatment,\,y}\}$$

Baseline emissions from electricity and fossil fuel consumption ($BE_{power,y}$) will be determined as per the procedures described in the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" and "Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion", respectively. The energy consumption shall include all equipment/devices in the baseline wastewater and sludge treatment facility. Historical records of at least one year prior to the project implementation shall be used for fossil fuel and/or electricity consumption per m^3 of wastewater treated. This parameter ($BE_{power,y}$) will only be included when $PE_{power,y}>BE_{power,y}$.

$$BE_{power,\,y} = \{BE_{EC,y} + BE_{FC,j,y}\}$$

Where:

$BE_{EC,}$	Baseline emissions from electricity consumption in year y (tCO_2e)
$BE_{FC,j,y}$	Baseline emissions from fossil fuel consumption in process j in year y (tCO_2e)

Then the baseline emissions from electricity consumption in year will be determined as follows:

$$BE_{EC,y} = \sum EC_{BL,k,y} * EF_{EL,k,y} * \{1+TDL_{k,y}\}$$

Where:

$EC_{BL,k,y}$	Quantity of electricity that would be consumed by the baseline electricity consumption source k in year y (MWh/yr).
$EF_{EL,k,y}$	Emissions factor for electricity generation for source k in year y (tCO_2/MWh)
$TDL_{k,y}$	Average technical transmissions and distribution losses providing electricity.

Then the baseline emissions from fossil fuel consumption in process j in year will be determined using the following equation:

$$BE_{FC,j,y} = \sum FC_{BL,i,j,y} + COEF_{i,y}$$

Where:

$FC_{BL,i,j,y}$	Quantity of fuel type i, combusted in baseline process j during the year y (mass or volume unit/yr).).
$COEF_{i,y}$	CO_2 emissions coefficient of fuel type i in year y (tCO_2/ mass or volume unit).

Methane emissions from the baseline wastewater treatment systems affected by the project ($BE_{ww,treatment,y}$) will be determined using the COD removal efficiency of the baseline plant:

$$BE_{ww,treatment,y} = \sum_i (Q_{ww,i,y} * COD_{\inf low,i,y} * \eta_{COD,BL,i} * MCF_{ww,treatment,BL,i}) * B_{o,ww} * UF_{BL} * GWP_{CH4}$$

Where:

$Q_{ww,i,y}$	Volume of wastewater treated in baseline wastewater treatment system i in year y (m^3). For ex ante estimation, forecasted wastewater generation volume or the designed capacity of the wastewater treatment facility can be used.
$COD_{inf\ low,i,y}$	Chemical oxygen demand of the wastewater inflow to the baseline treatment system i in year y (t/m^3).
$\eta_{COD,BL,i}$	COD removal efficiency of the baseline treatment system i, determined as per the paragraphs 26
$MCF_{ww,treatment,BL,i}$	Methane correction factor for baseline wastewater treatment systems i (MCF Anaerobic deep lagoon (depth more than 2 metres) = 0.8)
i	Index for baseline wastewater treatment system
$B_{o,ww}$	Methane producing capacity of the wastewater (IPCC value of 0.25 kg CH_4/kg COD)
UF_{BL}	Model correction factor to account for model uncertainties (0.89)
GWP_{CH4}	Global Warming Potential for methane (value of 21)

As satated before, if the CPA involves thermal energy production from the methane captured, and according to the AMS-I.C the following equation will be used:

$$BE_{thermal,CO2,y} = (EG_{thermal,y} / \eta_{BL,thermal}) * EF_{FF,CO2}$$

Where:

$BE_{thermal, CO2, y}$	Baseline emissions from steam/heat displaced by the project activity during the year y (tCO_2)
$EG_{thermal, y}$	Net quantity of steam/heat supplied by the project activity during the yeay y (TJ)
$\eta_{BL, thermal}$	Efficiency of the plant using fossil fuel that would have been used in the absence of the project activity.
$EF_{FF, CO2}$	CO_2 emission factor of the fossil fuel that would have been used in the baseline plant obtained from reliable local or national data if available, alternatively, IPCC default emission factors can be used (tCO_2/TJ)

The baseline methodologies AMS-III.H and AMS-I.C and the tools have been applied correctly to calculate baseline emissions.

APPLUS+ LGAI confirms that all equations and data used by the PP are listed in the final PoA-DD, including their references and sources. Furthermore, all documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PoA-DD and all values used inthe PoA-DD are considered reasonable in the context of the proposed CDM project activity that result in aconservative estimate of emission reductions.

3.5.4.2 PROJECT EMISSIONS

According to the methodologyAMS-III.H, the project emissions to be considered in the project activityare emissions from:

$PE_{power, y}$	Emissions from electricity or fuel consumption in the year y (tCo_2e).
$PE_{fugitive, y}$	Methane emissions from biogas release in capture systems in year y (tCO_2e).
$PE_{flaring, y}$	Methane emissions due to incomplete flaring in year y (tCO_2e).

Then the equation for calculation the project emissions will be:

$$PE_y = \{ PE_{power, y} + PE_{fugitive, y} + PE_{flaring, y}\}$$

In order to determine the emissions from electricity or fuel consumption the following equation will be used:

$$PE_{power, y} = PE_{EC,y} + PE_{FC, j, y}$$

Where:

$PE_{EC, y}$	Project Emissions from electricity consumption in the year y (tCo_2e).
$PE_{FC, j, y}$	Project emissions from fossil fuel combustion in process j in year y (tCO_2e).

Then, the project emissions from electricity consumption will be determined as follows:

$$PE_{EC,y} = \sum EC_{PJ, j, y} * EF_{EL, j, y} * \{1+TDL_{j,y}\}$$

Where:

$EC_{PJ, j, y}$	Quantity of electricity consumed by the project electricity consumption source j in year y (MWh/yr).

$EF_{EL, j, y}$	Emissions factor for electricity generation for source j in year y (tCO_2/MWh)
$TDL_{j,y}$	Average technical transmissions and distribution losses providing electricity to source j in year y.

Then the project emissions from fossil fuel consumption in process j in year will be determined using the following equation:

$$PE_{FC, j,y} = \sum FC_{i, j, y} + COEF_{i,y}$$

Where:

$FC_{i, j, y}$	Quantity of fuel type i, combusted in process j during the year y (mass or volume unit/yr).).
COEFi,y	CO2 emissions coefficient of fuel type i in year y (tCO2/ mass or volume unit).

For the calculation of the ($PE_{fugitive, y}$) methane emissions from biogas release in capture systems are determined using the following equation:

$$PE_{fugitive, y} = PE_{fugitive, ww, y}$$

Where:

$PE_{fugitive, ww, y}$	Fugitive emissions through capture inefficiencies in the anaerobic wastewater treatment systems in the year y (tCO_2e).

These fugitive emissions can be obtained using the following data:

$$PE_{fugitive, ww, y} = (1-CFE_{ww}) * MEP_{ww, treatment, y} * GWP_{CH4}$$

Where:

CFE_{ww}	Capture efficiency of the biogas recovery equipment in the wastewater treatment systems (default value of 0.9 will be used).
$MEP_{ww, treatment, y}$	Methane emission potential of wastewater treatment systems equipped with biogas recovery system in year y(t).

The Methane emission potential of wastewater treatment systems equipped with biogas recovery system will be determined as follows:

$$MEP_{ww, treatment, y} = Q_{ww, y} * B_{o, ww} * UF_{PJ} * \sum COD_{removed, PJ, k, y} * MCF_{ww,treatment, PJ, k}$$

Where:

$COD_{removed, PJ, k, y}$	The chemical oxygen demand removed by the treatment system k of the project activity equipped with biogas recovery in the year y (t/m^3).
$MCF_{ww,treatment, PJ, k}$	Methane correction factor for the project wastewater treatment system k equipped with biogas recovery equipment.
UF_{PJ}	Model correction factor to account for model uncertainties (1.12).

For the calculation of the methane emissions due to incomplete flaring CPAs will uses the following equation:

$$PE_{flaring,y} = PE_{flare,y} = \sum_{m=1}^{525,600} F_{CH4,RG,m} \times (1-\eta_{flare,m}) \times 10^{-3}$$

Where:

$PE_{flare, y}$	Project emissions from flaring of the residual gas in year y (tCO_2e).
$\eta_{flare, m}$	Flare efficiency in minute m.
GWP_{CH4}	Global Warming Potential of methane valid for the commitment period.
$F_{CH4, RG, m}$	Mass flow rate of methane in the residual gas in the minute m (kg).

PoA-DD indicates that it is not expected that there will be any relevant emission associated with the project activity within the project boundary that will not be counted for as part of $PE_{power, y}$, According to AMS-I.C, in case of such emissions source, it has to be added in individual CPA-DD.

APPLUS+ LGAI confirms that the equations of the Project Emissions included in the latest version of the PoA-DD are correct according to the applied methodology and all the formulae have been correctly described andused.

3.5.4.3 LEAKAGE

No leakage has been considered for emission reduction.

3.5.4.4 EMISSION REDUCTIONS

The Emissions Reductions ex ante will be calculated as follows:

$$ER_{y, ex\ ante} = BE_{y, ex\ ante} - PE_{y, ex\ ante} + BE_{thermal, CO2, y}$$

Where:

$ER_{y, ex\ ante}$	Ex ante emission reduction in year y (tCO_2e).
$BE_{y, ex\ ante}$	Ex ante baseline emissions in year y (tCO_2e).
$PE_{y, ex\ ante}$	Ex ante project emissions in year y (tCO_2e).
$BE_{thermal, CO2, y}$	Baseline emissions from steam/heat displaced by the project activity during the year y (tCO_2e).

Emission reductions Ex-post achieved in any year will be the lowest value of the following:

$$ER_{y, ex\ post} = \min((BE_{y, ex\ post} - PE_{y, ex\ post}), (MD_y - PE_{power\ y}))$$

Where:

$ER_{y, ex\ post}$	Emission reductions achieved by project activity based on monitored values for year y (tCO_2e).
$BE_{y, ex\ post}$	Baseline emissions calculated using ex post monitored values.
$PE_{y, ex\ post}$	Project emissions calculated using ex post monitored values.
MD_y	Methane captured and destroyed/gainfully used by the project activity in year y (tCO_2e).
$PE_{power\ y}$	Emissions from electricity or fuel consumption in the year y (tCo_2e).

$$MD_y = BG_{burnst, y} * w_{CH4, y} * D_{CH4} * FE * GWP_{CH4}$$

Where:

$BG_{burnst, y}$	Biogas flared/combusted in year y (m^3).
$w_{CH4, y}$	Methane content of the biogas in the year y (volume fraction).

D_{CH4}	Density of methane at the temperature and pressure of the biogas in the year y (t/m^3).
FE	Flare efficiency in year y (fraction).

When AMS-I.C will be also applied, the total amount of emission reductions will be calculated ex post as follows:

$$ER_y = ER_{y,\ ex\ post} + BE_{thermal,\ CO2,\ y}$$

Where:

$ER_{y,\ ex\ post}$	Emissions reductions achieved by the project activity based on monitored values for year y (tCO_2e).
$BE_{thermal,\ CO2,\ y}$	Baseline emissions from steam/heat displaced by project activity during year y (tCO_2).

Based on the above assessment, APPLUS+ LGAI confirms that that:

- All assumptions and documentation used by project participants as the basis for assumptions and source of data arecorrectly quoted and interpreted in the PoA-DD;
- All data used in the PoA-DD are considered reasonable in the context of the proposed CDM project activity;
- The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

3.6 ADDITIONALITY

3.6.1 STARTING DATE OF THE PROGRAMME OF ACTIVITIES

According to the final PoA-DD the starting date of the programme is 15/05/2012 which is the expected date that de PoA was submitted to validation, this is deemed appropriate, thus accepted by the validation team of APPLUS+ LGAI.

3.6.1.1 ADDITIONALITY OF THE PROGRAMME OF ACTIVITIES

The additionality of the programme has been presented in section B.1 of the PoA-DD. The approach used in the PoA-DD has been assessed initially through the document review followed by on-site discussions. Finally, the data, rationales, assumptions, justifications, and documentation provided have been verified using local knowledge as well as sectoral and financial expertise.

The proposed PoA is a voluntary action by the coordinating/managing entity FIRA. Based on the submitted documents and substantiation it is evident that this voluntary coordinated action would not be implemented in the absence of the PoA.

Additionality of the Programme of Activities is demonstrated through the explanation that the project activity would not have occurred anyway due to one of the following barriers:

(a) Investment barrier.
(b) Technological barrier.
(c) Barrier due to prevailing practice.
(d) Other barriers.

Project participant have demonstrated of the following barriers:

(a) Investment barrier.
PP in order to determine the NPV has taken into account the following data for / related to:
- The anaerobic digester
- The biogas boiler conversion
- The wastewater treatment

- The energy cost
- The timing
- The discount rates

As shown in PoA-DD, the investments considered under the proposed PoA are not attractive without CERs.
During the on-site assessment, the validation team has checked the information included in the spreadsheet.
All data and references have been checked out through its source.

(b) Technological barrier.
As it is stated in PoA-DD, technological barrier consist in the existing difficulty in Mexico in order to implement and operate similar projects.
During the validation process, the validation team has cross-checked the information in PoA-DD and references included in.

(c) Barrier due to prevailing practice.
For the demonstration of the prevailing practice, PP has used information contained in a registered CDM project activity (2333), and a common practice study.
During the validation process, the validation team has cross-checked the information in PoA-DD and references included in.

It has been clearly demonstrated that there is no mandatory policy or regulation in the host country enforcing the implementation of anaerobic wastewater treatment with biogas capture and destruction. This was confirmed based on the on-site interviews, internet search and the host country experience of the audit team.

In addition, the PoA-DD establishes in Sections B.2 (eligibility criteria) and Part II, B.5 the conditions that ensure that CPAs meet the requirements pertaining to the demonstration of the additionality.

As described in PoA-DD Part II, section B.5, a generic CPA would not be implemented in the absence of the SSC-CPA being included as registered PoA, because of the investment barrier. The implementation of an anaerobic wastewater treatment with biogas capture and destruction is not financially attractive.

Any CPA that wishes to be included within the PoA has to demonstrate that the implementation of the anaerobic wastewater treatment is financially unattractive and the inclusion of the CPA in the registered PoA helps to overcome this barrier.

The additionality was justified in accordance with the requirements derived from the "Standard for demonstration of additionality of GHG emission reductions achieved by a Programme of Activities" version 01.0 thus, based on the assessment above, the PoA is assessed to be additional by the validation team of APPLUS+ LGAI.

3.7 MONITORING PLAN

3.7.1 COMPLIANCE OF THE MONITORING PLAN WITH THE APPROVED METHODOLOGY

As stated above, the PoA and CPAs use the approved methodologies AMS-III.H and AMS-I.C.

Applicability of these methodologies is justified in the final PoA-DD as it involves methane recovery in wastewater treatment and thermal energy production with or without electricity.

The final PoA-DD clearly identifies the parameters to monitor, according to the possibilities of each CPA, in compliance with the applicable methodologies:

AMS-III.H

- $Q_{ww,\ i,\ y}$' the wastewater flow, which will be monitored continuously, at least hourly measurement will be undertaken) using flow meters.

- $COD_{ww,\ untreated,\ y}$, the chemical oxygen demand of the wastewater before the treatment system; COD will be monitored using representative samples.
- $COD_{ww,\ treated,\ y}$, the chemical oxygen demand of the wastewater after treatment system; measurement will be done according to national or international standards using representative samples.
- $BG_{burnt,y}$ biogas volume, measurement will be done using flow meters continuously (at least hourly measures will be taken).
- $w_{CH4,y}$ methane content in biogas, that will be measured continuously by an analyser, or alternatively, with periodical measurements.
- T, temperature of the biogas, which will be measured continuously, or alternatively, with periodical measurements.
- P, Pressure of the biogas, which will be measured continuously at the same time that the temperature is undertake.
- Scrapping of replaced equipment, the monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified

Tool project emissions from flaring:

- FE / $\eta_{flare,\cancel{h}m}$, flare efficiency.
- $F_{CH4,RG,m}$, mass flow rate of methane in the residual gaseous stream, which will be calculated using measurements for $BG_{burnt,y}$ and $w_{CH4,y}$.
- Other flare operation parameters, This should include all data and parameters that are required to monitor whether the flare operates within the range of operating conditions according to the manufacturer's specifications, for example temperature of flare as well as its operation above 500° C in an hour.

Tool to calculate baseline, project and/or leakage emissions from electricity consumption

- $EC_{BL,k,y}$, quantity of electricity that would be consumed by the baseline electricity.
- $EC_{PJ,j,y}$, quantity of electricity consumed by the project electricity. If it is possible, will be measured using a meter, alternatively will be calculated using the operating hours and relevant equipment ratings.

Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion

- $FC_{BL,i,j,y}$, quantity of fuel type i that would be combusted in baseline process, calculated using ex ante determination.
- $FC_{i,j,y}$, quantity of fuel type i combusted in process, calculated using a mass or volume meter.

AMS-I.C

- $EG_{thermal,y}$, net quantity of steam/heat supplied by the project activity, heat generation will be determined as the difference of the enthalpy of the steam generated by the heat generation equipment and the sum of enthalpies of the feed-fluid.
- Net quantity of steam/heat supplied by the project, measured using a meter continuously.
- T, temperature of the steam, continuously monitored using a calibrated meter.
- P, pressure of steam, continuously monitored using a calibrated meter.

Roles and responsibilities, training actions, archiving, measuring and calculation procedures, equipment details, and calibration requirements are will be clearly mentioned in the CPA-DD. Therefore, in the opinion of APPLUS+ LGAI's validation team the PP's will be able to implement the monitoring plan.

Therefore, in opinion of the APPLUS+ LGAI team, all necessary parameters required by the selected approved methodologies are contained in the monitoring plan. They are clearly

described and the means of monitoring, described in the plan, comply with the requirements of the methodology. The monitoring of the parameters involved in the emission reductions has been established in a transparent and clear way. Thus, the monitoring plan is in compliance with the requirements of the applied methodology.

3.7.2 IMPLEMENTATION OF THE MONITORING PLAN

After the review of evidence provided by the PPs, the interview and communications with PPs, APPLUS+ LGAI confirms that monitoring arrangements described in the monitoring plan are feasible within the project design and that the means considered for the implementation, including data management, quality and assurance control procedures, are sufficient to ensure that the emission achieved resulting from the proposed PoA can be reported ex post and verified.

Finally, APPLUS+ LGAI considers that the project participant is able to implement the monitoring plan stated in the PoA-DD taking into account all the reasons explained above

3.8 COMMENTS BY LOCAL STAKEHOLDERS

Local stakeholders' consultation is chosen to be done at CPA level.

By considering the local stakeholders' comments for each specific CPA, the Programme of Activities ensures that the impact of the specific wastewater treatment in the neighbour communities will be considered.

3.9 ENVIRONMENTAL IMPACTS

Environmental Analysis is chosen to be done at CPA level.

By considering the environmental impacts for each specific CPA, the Programme of Activities ensures that the impact of the specific wastewater treatment in the neighbour communities will be considered.

4 GENERIC COMPONENT PROJECT ACTIVITY (CPA)

4.1 OPERATIONAL MANAGEMENT AND VERIFICATION PLAN

Management structure of the monitoring plan will be defined on each CPA-DD.

Operational management and verification plan in the final PoA-DD is assessed to be appropriate for the purpose of the programme monitoring. The overall responsibility for the monitoring will be held by each CPA CDM Manager.

A data collection and archiving system under the responsibility of the CPA CDM Manager will be put in place to record and maintain the required data as listed in the monitoring tables.

Data will be electronically archived as part of monitoring for a period of two years from the end of the crediting period.

Procedures for collection of data required for SSC-CPA monitoring will be under the responsibility of the CPA CDM Manager; procedures will comply or surpass the requirements described in the monitoring tables.

When measured data shows high levels of uncertainty, calibration is not in-line with requirements, or data is missing, affected data should be compared or substituted with location/national data and/or commercial data to ensure consistency.

The monitoring plan proposed for each CPA is confirmed to ensure the data accuracy, to avoid double counting, to addressing uncertainty (QA/QC), and to manage monitoring data storage for the monitoring of all CPAs.

4.2 CRITERIA FOR INCLUSSION OF SSC-CPA IN THE POA.

In opinion of the validation team since the list of eligibility criteria considered fulfil with the "Standard for the development of eligibility criteria for the inclusion of a project activity as a CPA under the PoA" version 01.0.

A complete list of CPA Eligibility Criteria has been set up in section Part 1, Section B.2 of the final PoA-DD and section Part 2, Section B.5 of the generic CPA-DD, and is deemed appropriate and sufficient.

An SSC-CPA to be included under this SSC-PoA must present the following characteristics:

- The geographical boundary of the SSC-CPA lies within the boundary of Mexico.
- Be eligible to receive a credit from FIRA resources, and be an eligible activity for FIRA's resources;
- Will implement an advanced wastewater and/or sludge treatment system(s) including destruction and/or utilization of methane captured;
- Project developer(s) (will) have a credit and/or guarantee supported by FIRA;
- Technology provider for the main wastewater treatment system has received a no objection vote by FIRA;
- The starting date of the CPA is not prior to the Validation start date of the proposed programme;
- Any existing wastewater treatment system does not include biogas recovery and combustion and directly vents biogas to the atmosphere;
- Shall follow and comply with the requirements of methodology AMS-III.H. Version 16.0 (specified in section E.2 of this document);
- Applies one of the following primary technology combinations:
    - Anaerobic digestion plus flaring of biogas
    - Anaerobic digestion plus application of biogas for heat generation (follows and complies with AMS-I.C. Version 19.0)
    - Anaerobic digestion plus application of biogas for electricity generation (Emission reductions are not claimed for electricity generation; no other methodology is applied)

- Each SSC-CPA will stay within the small-scale threshold criteria of the Type I (i.e< 45 MWth and/or 15 MWe) and Type III (i.e< 60,000 CERs per year) components of the project activity and will remain within those thresholds throughout the crediting period of the SSC-CPA.;
- Demonstrates additionality via, at least, an investment barrier;
- Has signed an inclusion agreement with FIRA accepting the inclusion requirements to participate in the programme (these inclusion requirements refers to the knowledge of the CPA developer of these eligibility criteria as specified in this section);
- Its SSC-CPA-DD has been checked by FIRA and approved for forwarding to the DOE for inclusion in the SSC-PoA.
- If an environmental assessment or any other specific type of assessment is required by law or regulations, each CPA shall undertake this assessment at the time of inclusion of the CPA in the PoA.
- Each SSC-CPA will either i) not involve funding from Annex I parties, or ii) if any funding from Annex I parties is involved, it will not result in a diversion of official development assistance.
- The sampling related activities for each SSC-CPA for measurement and monitoring must meet the requirements of the "Standard for sampling and surveys of CDM project activities and programmes of activities".
- Each SSC-CPA will demonstrate that there is no debundling involved in the Project.

Each CPA will have to demonstrate the additionality individually at CPA level and this will be checked at the CPA level by the managing entity and can be confirmed by the DOE during inclusion. Every CPA will have to meet all the criteria to ensure eligibility to participate in this PoA.

4.3 PROVISIONS IN CASE OF WITHDRAWAL OR HELD OF THE APPLIED METHODOLOGY

Provisions regarding the revisions of the CPAs in case the methodology is put on hold or withdrawn have been established in accordance with the ”Procedures for registration of a Programme of Activities as a single CDM project activity and issuance of certified emission reductions for a Programme of Activities” version 04.1 as follows:

- If applied methodology is put on hold or withdrawn, no new CPA will be included to the PoA in accordance with the timelines indicated in the latest version of the Procedures for the revision of an approved small scale methodology by the Executive Board.
- If applied methodology, subsequent to being placed on hold or withdrawn, is revised or replaced by inclusion in a consolidated methodology, the PoA shall be revised accordingly. The changes will be documented in a new version of the PoA and validated by a DOE and approved by the Board. In case the methodology is only revised without being put on hold or withdrawn, these changes are not required and will not be conducted.
  In case of changes in the PoA and after approval by the Board, the inclusion of new CPAs will follow the latest version of the CDM-CPA-DD;
- In cases of withdrawal or held of the methodology, those CPAs included before the withdrawal will apply the latest version of the generic CDM-CPA-DD at the time of the renewal of the crediting period.

5 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to Decision 3/CMP.1, the validator shall make the PoA-DD, specific CPA-DD and generic CPA-DD publicly available and receive comments on the validation requirements from parties, stakeholders and UNFCCC accredited NGOs within 30 days, and make them publicly available.

APPLUS+ LGAI published the project document on CDM website (http://unfccc.cdm.int) on 23/05/2012 and invited comments by Parties, stakeholders and non-governmental organizations. No comments were received.

6 VALIDATION OPINION

APPLUS+ LGAI has performed a validation of the Programme of Activities FIRA Wastewater Treatment System, Methane Capture and Utilisation Programme in Mexico. The validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given for the Programmes of Activities to provide for consistent operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the programme design, the baseline and the monitoring plans; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion. In the course of the validation process, 2 corrective actions and 4 clarifications were raised; all have been successfully closed.

The review of the programme design documentation and additional documents related to baseline and monitoring methodology, and the subsequent background investigation, follow-up interviews and review of comments by parties and stakeholders have provided APPLUS+ LGAI with sufficient evidence to validate the fulfilment of the stated criteria.

The conclusions can be summarised in detail as follows:

- The PoA is in line with all relevant host country criteria of Mexican DNA, with the Letter of Approval and with all relevant UNFCCC requirements for Programme of Activities. The LoA from Mexico is dated 15/06/2012.
- The operational and management plan established by the coordinating entity is suitable for the PoA validated.
- The baseline has been appropriately identified as per the applied methodology.
- Eligibility criteria in the PoA-DD are sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA. These requirements include the means of demonstrating the additionality of the CPA and the applicability of the applied methodology.
- The programme's additionality is sufficiently justified in the PoA-DD.
- The monitoring plan and the Operational and Management Plan are transparent and adequate.
- The calculation of validated CPA emission reductions has been carried out in a transparent and conservative manner, following the approved methodologies AMS-III.H version 16.0 and AMS-I.C version 19.0.
- Information on the local stakeholders' consultation by the project participants prior to submitting the PoA for validation is sufficiently provided in the PoA-DD.
- All information has been also consistently applied in the generic CPA-DD form.

In our opinion, the Program correctly applies and meets the relevant UNFCCC requirements for the CDM Programme of Activities and the relevant host country criteria. The validation is based on the information made available to us and the engagement conditions detailed in this report.

The validation has been performed using a risk based approach, as described above. The only purpose of this report is its use during the registration process as part of the "Clean Development Mechanism Validation And Verification Standard" version 02. Hence, APPLUS+ LGAI cannot be held liable by any party for decisions made or not made based on the validation opinion, which would go beyond the purpose.

Audit Team

Name: Miquel Picas M.	Name: Adrián Ruíz E.	Name: Agustín Salas M.
Signature:	Signature:	Signature:
Date: 29/01/2013	Date: 29/01/2013	Date: 29/01/2013

Technical Reviewer: Miquel Sitjes Cabana

Date: 29/01/2013

Signature:

B.U. General Manager: Juan Sendín Caballero

Date: 29/01/2013

Signature:

7 REFERENCES

7.1 DOCUMENTATION PROVIDED BY THE PROJECT PARTICIPANTS

PP/1/ PoA-DD version 01 and dated on 30/04/2012.

PP/2/ FIRA website information of the PoA (http://www.fira.gob.mx/Nd/MecanismoDesarrolloLimpio.jsp).

PP/3/ Pre-feasibility questionnaire (http://www.fira.gob.mx/Nd/CuestionarioInventarioPoAAwPorcinos.zip).

PP/4/ Spreadsheet for financial analysis and WACC (Coded P126_VAL-003.xls) for PoA.

PP/5/ Waste-Water Treatment Technologies: A General Review, Annex VI, United Nations.

PP/6/ Explanation of the Barrier due to prevailing practice (http://www.oportunidadesdenegocios.com.mx/texto.asp?id_noticia=4515933).

PP/7/ Explanation of the Barrier due to prevailing practice (http://www.mexicosgreatestbrands.org/Vol4/pdf/JoseCuervo.pdf).

PP/8/ Explanation of the Barrier due to prevailing practice (http://www.inforural.com.mx/imprimir.php?id_rubrique=252&id_article=60714).

PP/9/ Explanation of the Barrier due to prevailing practice (http://www.tequilasdonrafael.com/web/a_noticias.php?id_noticia=66).

PP/10/ Explanation of the Barrier due to prevailing practice (http://www.inforural.com.mx/imprimir.php?id_rubrique=252&id_article=60714).

PP/11/ Explanation of the Barrier due to prevailing practice (E.g. , view. <http://investors.brown-forman.com/phoenix.zhtml?c=98415&p=irol-newsArticle&ID=951829&highlight=> ;http://beamglobal.pixel.us.com/news/49-beam-appoints-veteran-marketing-executive-debora-boyda-as-mixables-general-manager).

PP/12/ IGES CDM Project Data Base. Institute For Global Environmental Strategies. Available at: http://www.iges.or.jp/en/cdm/report_cdm.html.

PP/13/ DIAGNOSTICO RED DE AGAVE -- Proyecto MDL en la Industria del Tequila en Jalisco. Informe sobre Procesos Industriales en las Principales Empresas (Coede P126_VAL_029.ppt).

7.2 LETTERS OF APPROVAL

LoA/1/ Letter of Approval with reference number 308/2012 emitted by the Mexican DNA (Interministerial Commission on Climate Change) dated on 15/06/2012.

LoA/2/ Mexican DNA website (http://www.cambioclimatico.gob.mx/index.php/mecanismo-de-mercado.html).

LoA/3/ UNFCCC Designated National Authorities (http://cdm.unfccc.int/DNA/index.html).

LoA/4/ E-mail asking the Mexican DNA about the authenticity of the LoA provided.

7.3 METHODOLOGIES, TOOLS AND OTHER GUIDANCE BY THE CDM EXECUTIVE BOARD

EB/1/ UNFCCC Website latest forms published (http://cdm.unfccc.int/Reference/PDDs_Forms/index.html#reg).

EB/2/ AMS-III.H "Methane recovery in wastewater treatment" version 16.0

EB/3/ AMS-I.C "Thermal energy production with or without electricity" version 19.0.

EB/4/ "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" - Version 1.

EB/5/ "Emissions from solid waste disposal sites" – Version 06.0.1

EB/6/ "Project emissions from flaring" - Version 2.

EB/7/ "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" – Version 2

EB/8/ "Tool to determine the baseline efficiency of thermal or electric energy generation systems" – Version 1.

EB/9/ Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, version 01.0

EB/10/ Attachment A to Appendix B of the Simplified modalities and procedures for small-scale CDM project activities.

EB/11/ "Standard for demonstration of additionality of GHG emission reductions achieved by a Programme of Activities" version 01.0.

EB/12/ "Clean Development Mechanism Validation And Verification Standard" version 02.

7.4 LAWS AND REGULATIONS

OD/1/ PoA information on UNFCCC website (http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/7RY6JXGNIQCVK5IX3XMX8K48484C8L/view.html)

OD/2/ Environmental Legislation in Mexico (http://www.semarnat.gob.mx/leyesynormas/Pages/inicio.aspx)

OD/1/ Project Activity # 2333 PDD (http://cdm.unfccc.int/Projects/DB/SGS-UKL1227803013.46/view).

8 ANNEX A