VALIDATION REPORT

Quimobásicos S.A. de C.V.

Quimobásicos HFC Recovery and Destruction Project (plant 2)

SGS Climate Change Programme
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Date of Issue:	**Project Number:**
19-12-2008	CDM.VAL1005 PA04
Project Title:	
Quimobásicos HFC Recovery and Destruction Project (plant 2)	
Organisation:	**Client:**
SGS United Kingdom Limited	Quimobásicos S.A. de C.V.
Publication of PDD for Stakeholders Consultation	
Commenting Period:	21st June until 20th July 2008
First PDD Version and Date:	Version 1.0 – June 2008
Final PDD Version and Date:	Version 4.0 – 15th December 2008

Summary:

Quimobásicos S.A. de C.V. has commissioned SGS to perform the validation of the project: Quimobásicos HFC Recovery and Destruction Project (plant 2)

Methodology used: AM0001 Incineration of HFC 23 Waste Streams

Version and Date: Version 5.2 --- Valid from 22 Dec 06 onwards

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The report is based on the findings of document reviews, the stakeholder consultation process and responses from the project participants to the findings raised in this report.

The report and the annexed validation describes a total of 18 findings which include:

- 8 Corrective Action Requests;
- 10 New Information Requests; and

All findings have been closed out satisfactorily and the project will be recommended to the CDM Executive Board with a request for registration.

Subject:

CDM Validation

Validation Team:

Aurea Nardelli – Lead Assessor
Edgar Salinas – Assessor
Shivananda Shetty – Expert

Technical Review:	**Trainee Technical Reviewer:**
Date: 23-09-2008 and 09-02-2009 Name: Vikrant Badve	Name: N/A

Authorised Signatory:

Name: Siddharth Yadav
Date: 9th February 2009

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Annexes:

1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Quimobásicos S.A. de C.V. to perform a validation of the project: Quimobásicos HFC Recovery and Destruction Project (plant 2) in the State of Nuevo Leon, Monterrey city, Mexico.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed of the project design documentation, using a risk based approach and conducted follow-up interviews.

By installing plasma destruction unit the project activity will result in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project correctly applies methodology AM0001 version 5.2. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project are estimated to be 7,831,824 tCO2e over a 10 year crediting period, averaging **783,182** tCO2e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The project will hence be recommended by SGS for registration with the UNFCCC.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 9th February 2009

2. Introduction

2.1 Objective

Quimobásicos S.A. de C.V.has commissioned SGS to perform the validation of the project: Quimobásicos HFC Recovery and Destruction Project (plant 2) with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are 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 seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed 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 consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2.3 GHG Project Description

The projects aim at collecting HFC23 (i.e. by product of HCFC22) that is being released to the atmosphere at the Quimobasicos chemical plant. For the purposes of the CDM activity, the project developers intend installing an in-flight argon plasma arc facility to the currently operating HCFC-22 plant #2.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Aurea Nardelli	Lead Assessor	SGS Brazil
Edgar Salinas	Assessor	SGS Panama
Shivananda Shetty	Expert	SGS India

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline.

The site visit took place on 24th -25th July 2008 and interviews were conducted with representatives of Quimobasicos, S.A. After the site visit was concluded, the validation team and the staff from EcoSecurities engaged into a continuous communication in order to clear the findings that arose as a result of the site visit. The discussion of these findings and their conclusion can be found in the validation protocol (Annex 2) and in the overview of findings (Annex 3).

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

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

Checklist Question	Ref ID	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this project is attached as Annex A.2 to this report

3.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR).** A CAR

is issued, where:

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (AnnexA.3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Validation Findings

4.1 Participation Requirements

Section A.3 (Project participants) indicates that the Party involved is Mexico as the host country. It has been verified at the UNFCCC website that Mexico ratified the Kyoto Protocol on 7th September 2000 (http://maindb.unfccc.int/public/country.pl?country=MX). The only project participant identified in Section A.3 is Quimobásicos S.A. de C.V. There is no Annex I country identified for the project activity. The project developer has already obtained a Letter of approval by the host country that states it will assist Mexico in achieving sustainable development. See Ref.10 - LoA_DNA Mexico.jpg

4.2 Project Design

The project activity is identified in both the PDD and UNFCCC website as: "Quimobásicos HFC Recovery and Destruction Project **(plant 2)**". Note that this project shall no be mixed up with Quimobásicos HFC Recovery and Destruction Project, which an already registered project (i.e. date: 14th June 2006; Ref.N°: 0151). While taking into account the differentiation between both titles, marked by the addition of: (plant 2); then it is clear that no other project is registered under the same title. The original submission of the PDD was identified as "version 1", dated June 2008. Since some issues were highlighted during the validation CAR 1, project proponents had to modify the PDD in order to address those issues and a new version of PDD was submitted. All the inconsistencies highlighted in CAR 1 were addressed in version 2 of the PDD. Therefore CAR 1 was closed out.

Overall, the information provided in the PDD was in compliance with the actual situation. However, it was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there was no reference to this WWTP within the project boundary section; a corrective action request CAR 8 was raised in order to address this issue. CAR 8 was closed after the corrective action was implemented in the new version of the PDD. The wastewater treatment plant was added to the project boundary diagram of the section B.3 (revised PDD).

Similarly, it was observed during the site visit that a new boiler is being installed (Ref.18 - New bolier.JPG). As this new equipment could be directly linked to the project activity as its source of steam supply; a new information request NIR 9 was raised in order to ask project participants to provide additional explanations concerning the impacts of this new boiler towards the CDM project. NIR 9 was closed after project participants clarified that although the new boiler (observed during the site visit) will provide steam to the plasma unit and replace the old one; they decided to keep the current consumption of the old boiler (Ref.19 - Boiler in operation.JPG) (100 cubic meters per ton of steam) for the ex-ante specific gas consumption, in order to enhance the conservativeness of the ex-ante calculation.

Further, it was confirmed during the site visit that the project activity is located in the Municipality of Monterrey, city of Monterrey, State of Nuevo Leon, Mexico. The coordinates provided in the PDD and the pictures of the site have been downloaded from Google Earth. They are in line with the observations made during the site visit.

Quimobásicos S.A. de C.V. is a legally registered company, founded in 1961, which is part of the well-recognised Mexican holding Cydsa. Quimobasicos indeed possess the ownership that allows the implementation of the project Further reference can be found at:

- http://www.quimobasicos.com.mx/
- http://www.cydsa.com/

In addition, the certifications and awards given to Quimobasicos demonstrate their capabilities to implement this CDM activity in satisfactory manner. (see: Ref.16 - Quimo Certifications .JPG). The CDM project, Quimobasicos (plant 2) reflects state of the art technology and the lay out of the plant is in accordance to best practices in the market for the production of HCFC22 (i.e. G22 to the effects of Quimobasicos). See references: Ref.12 - Plasma unit_tech specs.pdf Ref.13 - Production of HCFC22 flowchart.ppt

4.3 Eligibility as a Small Scale Project

Not applicable

4.4 Baseline Selection and Additionality

Project participants applied AM0001 version 5.2 at the moment of completion and submission of the PDD for the global stakeholder consultations. This methodology is deemed as applicable to this type of project, which entails recovery and destruction HFC23 as a sub-product of the production of HCFC22. The project was in conformance with all the applicability conditions of the chosen methodology. Yet, in order to corroborate that the project was in full compliance, NIR 2 was raised as the applicability conditions of ACM0001 estipulate that the project activity should occur in a country where no regulation requires the destruction of the total amount of HFC23 waste. In this regard, project participants were encouraged to provide evidence that demonstrate there is a system or procedure in place to identify and update all environmental legal requirements related to the project's activities. While conducting the site visit, it was observed that this chemical plant (Quimobasicos) is ISO-14001 certified and therefore its management system has a procedure to update the applicable environmental regulations on a regular basis.

To verify the procedure was in place, CAR 13 was raised to ask the project proponent to explain what the system checked and how often it was check. The project participant explained in the PDD in detail that the daily verification consists of an exhaustive revision of the Méxican Ministry of Interior Webpage, called the Federation Official Diary, which is the official reference for current laws and regulations in México. The result of the verification is then recorded as per ISO 14001 procedure. (Ref.30 – HCFC23 regulation). Further, it was verified that no regulations for hydrofluorocarbons existed in Mexico as of July 2008 when the last update of environmental laws was carried. As this meets the applicability conditions that ACM0001 requires, NIR 2 was closed out.

As compared to other approved CDM methodologies, AM0001 v.5.2 does not prescribe a step by step procedure for the identification of the baseline scenario. It has been verified during this validation that there are no legal requirements to destroy HFC23 in Mexico (see B.1.3) and in addition to that there is no economic incentive to Quimobasicos to make significant investment for destruction of HFC23 other than the CDM benefits. Therefore, it can be reasonably assumed that emissions of HFC23 will continue to be released to the atmosphere in the absence of the project. (See Ref.17 - HFC23 released to atmosphere.JPG)

Concerning the discussion on additionality, AM0001 v.5.2. states: "In the absence of regulations requiring HFC 23 destruction it is typically released to the atmosphere because a destruction facility entails significant capital and operating costs and the host entity has no direct economic incentive to incur these costs". This is the case of Quimobasicos and the project justifies its additionality on what it's prescribed by the methodology.

As per EB41, Annex 46, para 5; considering that the project start date was 30th April 2008 and that this start date was prior to the date of publication of the PDD for global stakeholder consultation (21 June 2008); project proponents were required to demonstrate that the CDM was seriously considered in the decision to implement the project activity. In the same line, the Guidelines for completing the Project Design Document (CDM-PDD) state in Section B.5: "If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project Activity". Hence, NIR 16 was raised in order to ask project participants to provide further evidence that supports the serious consideration of the CDM for the purposes of the implementation of Quimobasicos (plant 2). In this regard, project participant provided the contract (legal and/or corporate documentation) between EcoSecurities Group PLC and Quimobasicos S.A. de C.V. (Ref. 32 – CDM consideration) dated January 31st, 2008. This date is before the date of start of the project that was set to be April 30th, 2008, proving a serious consideration of the CDM. NIR 16 was closed out.

4.5 Application of Baseline Methodology and Calculation of Emission Factors

The methodology is applied exactly as prescribed and the PDD clearly states which equations were used in calculating baseline emission. CAR 14 was raised on the basis of what the methodology says in page 5/17 that: "The historical waste generation rate w shall be estimated for the three (3) most recent years of operation up to 2004" given the fact that project developers calculated their w factor using data from year

2000, which seemed to be out of the range 2000-2004 as the most recent three years of operations. In their response, project developers explained that in their interpretation of the methodology “w shall be estimated for the three (3) most recent years of operation up to 2004”, which is an open statement that is not limited to the vintage 2000-2004 as it was originally interpreted when this CAR was raised. Since the methodology suggests using either recent 3 years data or conservative value. The clarification provided by project developers was not accepted as it was using only a recent year data and not recent 3 years data. Project participant was asked to provide three years data for calculation of *‘w’* factor or use conservative value of 1.5%. After it was verified that the w factor used in the PDD and the CERs Spreadsheet is the conservative value of 1.5% in accordance with the methodology. Hence CAR14 was closed out.

Satisfactory evidence was provided during the site visit in order to corroborate the historical production of CFCs and HCFC for the period of 2000-2005. The records actually matched the amount of HCFC22 presented in Table 5 of the PDD (i.e. 225 tonnes), which is in line with ACM0001 v.5.2 that reads: "The CFC production at swing plants should be included as an equivalent HCFC-22 production in Q_HCFCeHist only for those production lines and only for those years in which HCFC-22 was actually produced in that production line".

Further, project participants provided copy of the production versus sales records in order to support the abovementioned figure of 225 tonnes of HCFC for the year 2000. Yet, this NIR11 has been raised in order to ask project participants to further explain how this production of 225 tonnes could be linked or cross check against orders placed by clients (actual demand) and sales records that can evidence actual delivery. After the required additional information was provided, NIR11 was closed. It was clarified, as explained by the project developers and supported by production and sales records, that during the year 2000, Quimobasicos produced a total (plant 1 + plant 2) of 4,311.4 tonnes of HCFC-22, from which 4,237.9 have been sold (as shown in the records), which means a net quantity of 73.5 tonnes have been added to the inventory during year 2000. From the total of 4,311.4 tonnes produced, plant 1 has produced 4086.5 tonnes and plant 2 has produced 224.9 tonnes; which means plant 1 could not cover all the demand (4,237.9 tonnes); plant 2 has been necessary in order to respond it. As shown in the balance, 98.3% of the HCFC-22 produced has been sold, with a small amount of HCFC-22 in the inventory of year 2000 (1.7%), which shows that there has been a constant market demand for HCFC-22.

Besides, the maximum inventory capacity of the plant is defined as 60 days of production, which means that for a 1 month period, the plant can store a maximum of 2 months in the inventory. For the year 2000 which has 4237.9 tonnes in HCFC-22 sales, it means 11.77 tonnes per day (4237.9 tonnes divided by 360 days, taking off the holidays) multiply by 60 days = 706.3 tonnes of inventory capacity, each month. As shown in row #12 of the balance spreadsheet (Ref.09 - production vs invoices.xls), the month inventory has never been at the maximum capacity in any of the month, not even half of it the majority of the time. Again, this balance dynamic demonstrates the constancy of the market demand for HCFC-22.

CAR 13 e. was raised to ask project participants to include in the PDD the reference that justifies the use of Emission Factor: 0.3614 tCO2/MWh for the power plant that supplies electricity to Quimobasicos. Section B.6.2 was modified after project participants specified the section that mentions the emission factor in the internal report (Ref.28 – CO2 Emission MWh Iberdrola) of the power plant Iberdrola, where it shows the amount 359.8675KgCO2/MWh. The emission factor was then changed to 0.3599 tonsCO2/MWh and used as the Electricity Grid emission factor (Ref.29 – Grid Emission Factor Calculation). By the same token, NIR 18 was raised to ask project participants to provide the full document for the sake of transparency. Taking into account that Iberdrola refused to disclose the electricity generation and fuel consumption as it is confidential data, project proponents decided to use the 1.3 tCO2e/MWh as prescribed by the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” for cases where there is electricity consumption from the grid (Scenario A) .This default factor actually penalised project proponents and enhanced the conservativeness of the PDD because it is greater than the emission factor that was originally presented. NIR 18 was closed out after the information was verified through the calculations of project emissions.

Project emissions are correctly estimated.

It was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there was no reference to this WWTP in the emissions due to the destruction process (E_DPy) and leakage (Ly); (PDD v1); CAR 8 was raised in order to address this issue. CAR 8 was

closed after the corrective action was implemented in the new version of the PDD (version 2). Since, the methodology states: *"The steam and electricity are assumed to be purchased, so the emissions associated with these energy sources are included in the leakage calculation"* (page 2/17 AM0001 v.5.2); the emissions associated to the WWTP were included in the parameter Q_Power under the leakage section. For the purposes of ex-ante calculations of CERs, the revised PDD kept the value of 1095 MWh. This is permissible as this is a monitored parameter, thus no more issues were raised in this regard.

In terms of Leakage emissions NIR 4 has been raised because the Leakage section (PDD v1) contained several data that needed further evidence to be supported:

a. Natural gas emission factor (0.001987 tCO2/m3). Provide reference.

b. A total quantity of 300 tonnes of solid waste per year is estimated to be generated. Please provide records or explanations that support this estimate

c. Assuming that each truck has a specific fuel conservative consumption of 3 kilometres per litre of diesel, and a capacity of 10 tonnes of solid waste. Provide evidence that support this assumption.

NIR 4 was closed after project proponents clarified that:

a. The emission factor for natural gas was derived from the natural gas lower heating value (0.038116 GJ/m3) taken from the Secretary of energy "Balance Nacional de Energía 2005", Table 20, Page 84, line 5 and the natural gas emission factor of 56.1 found in Volume 2 (Energy), of the IPCC 2006 Guidelines for Greenhouse Gas Inventories.

b. The generation of solid waste is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant.

c. The diesel consumption by trucks is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant.

In addition, a corrective action request CAR 6 was raised because during the site visit it was observed that the Monitoring Reports registries corresponding to Quimobasicos (Plant 1) reflected a value of 189.37 tonnes/year for the amount of steam consumption utilized by the decomposition process (Q_Steam,y); nevertheless the PDD applies a different value of 64 tonnes/year. CAR06 was closed after having satisfactorily verified (via revision of historical records) that the value applied for the steam consumption by the decomposition process comes from the monthly records of readings taking from the meters from June 2006 to may 2007. These values are based on the steam consumption of Quimobasicos plant 1 (Registered CMD project, ref# 0151). Records of steam consumption from June 4th 2007 to June 3rd 2008 were provided and showed a consumption of 190.489 tonnes of steam. It was noted that this value differed from the one presented in Ref.06 - Values applied_CER calculation.doc, which actually indicated 189.372 tonnes/year. However, as this parameter is going to be monitored, the value of 190 tonnes per year is permissible to the effects of the PDD.

By the same token, a corrective action request CAR 7 was raised because during the site visit it was observed that the wastewater treatment records reflected a value of 579.74 m3 for the generation of sludge (on a dry basis); nevertheless the PDD v.1 applied a different value of 300 m3 for the estimation of leakage due to transportation of sludge outside the facilities. CAR 7 was closed after project proponents clarified that the generation of solid waste is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant. In any case, the revised PDD keeps provisions in this regard so now "The emissions from transportation are calculated based on the specific consumption of the vehicle, the emission factor of the vehicle fuel and the distance to the disposal site, go and return." This means that since there is no disposal site yet, hence the distance to the disposal is 0, and consequently the parameter ET is also 0 for ex-ante calculations. If this scenario changes in the future then leakage emissions should be accounted for. This is acceptable.

4.6 Application of Monitoring Methodology and Monitoring Plan

The monitoring methodology is consistent. Description of the monitored parameters and required measurement procedures has been provided in an adequate manner. It was checked and verified that

critical parameters for the estimation of baseline and project emissions are included in the monitoring methodology. As far as the monitoring plan concerns, the monitoring plan provide clear and appropriate procedures for training, data collection and recording, quality control and quality assurance and equipment calibration. The main indicators needed for the estimation of reduction of GHG emissions are:

- Quantity of HFC23 supplied to the destruction process (Ref.20 - flow meters HFC23.JPG)
- Purity of the HFC23 supplied to the destruction process
- The quantity of HCFC 22 produced in the plant generating the HFC23 waste

Sections B.7.1, B.7.2 (i.e. maintenance and Calibration of monitoring equipment) and Annex 4 of PDD did not state the frequency of calibration for the flow meters used to monitor the quantity of HFC 23 destroyed (q_HFC23y) as established prescribed by AM001. Based on this, a corrective action request (CAR 12) was raised in order to ask project participants to specify the calibration frequency of the HFC 23 flow meter, in section B.7.1, B.7.2 and Annex 4 of the PDD. In addition, these sections should also specify the frequency of calibration for the rest of instruments used for data monitoring purposes. After the project participant provided a new version of the PDD, CAR 12 was closed. The frequency specified is in compliance with AM0001 version 5.2. Also a footnote was added to section B.7.2 to refer to section B.7.1 for frequency of calibration of the equipment.

4.7 Choice of the Crediting Period

The first version of the PDD originally claimed that the crediting period would start on 1st January 2009. However, taking into consideration the time spent on the validation process the last version of the PDD now states as follows: The crediting period will start on 01/08/2009 (1st August 2009), or on the date of registration of the CDM project activity, whichever is later. Further, the PDD mentions April 30th 2008 as the starting date of the project activity (when the investment was first approved at Cydsa's Board of Directors). NIR 5 was raised in order to request project participants to provide evidence to support this day as the start of the project activity. NIR05 was closed after project proponents submitted minutes from the board of directors (Ref.07 - Board of directors_start date.pdf) held on 30th April 2008 where an Addendum to the Budget of Quimobasicos for the year 2008 was presented. The addendum basically states that an investment of US 2,160,000.00 was to be added to the original approved budget for year 2008 (US 2,514,000.00) in order to install a new inconel reactor to assure the safety and continuity of operations.

Further, the minutes expressed that investment needed for the installation of a second plasma technology destruction unit were to be approved so long the Mexican Government and the UNFCCC, CDM authorities gave their consent to its implementation. This was in line with the Guidelines for completing the Project Design Document (CDM-PDD) version 06.2 that states in Section B.5 that *"If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity"* and therefore NIR 5 was closed out.

The project crediting period is clearly defined as 10 years (fixed), as per Section C.2.2.2 of the PDD. This is reasonable and conservative given the expected operational lifetime of the required equipment

4.8 Environmental Impacts

Based on previous experience with Quimobasicos plant 1 where the project developers had actually conducted an EIA for the installation of the plasma destruction unit (same technology and arrangement planned for Quimobasicos plant 2); the environmental authority indicated that such project does not require such environmental assessment and therefore its implementation can be done. This explanation was given by the General Manager and copy of this approval was surrendered by the project developers (See Ref.21 - Compliance with Environmental Regs.PDF) Project developers also provided Environmental License for the Quimobasicos facilities Ref.22.

4.9 Local Stakeholder Comments

PDD Section E.1 states that Quimobasicos conducted a stakeholder consultation program on May 12th, 2008.

It has also been informed in the PDD that letters were sent to direct stakeholders such as the Municipality of Monterrey, the City Hall, the Environmental State Department (SEMARNAT) and others. The list where the invitees acknowledged receipt of the invitation letter (Ref.24) was provided as evidence of this process (121 stakeholders participated of this consultation; Ref.25 shows the attendance list to that meeting).

5. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

5.1 Description of How and When the PDD was Made Publicly Available

Note that SGS decided to make the Project Design Document (PDD) publicly available directly on the UNFCCC CDM website:

http://cdm.unfccc.int/Projects/Validation/DB/RNTRYFB26XDZP1RRKTYMW1VSXO6K8W/view.html

and was open for comments from 21 June until 20 July 2008. Comments were invited through the UNFCCC CDM homepage.

5.2 Compilation of all Comments Received

No comments were received during the consultation period.

5.3 Explanation of How Comments Have Been Taken into Account

Not applicable. See item 5.2. above.

6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
24-25 July	Sergio Lozano García	General Manager	Consideration of the CDM by the Board of Directors for the purposes of implementing the project
24-25 July	Armando Ortega	Superintendent of Quality Control and Quality Assurance	Description of the overall process of production of HCFC22
24-25 July	Javier Morales	Superintendent of Production Process	Identification and explanation of pipelines conducting the HFC23 stream
24-25 July	Encarnacion Ramírez	Production Engineer	Collection and registries of production records
24-25 July	Juan Treviño	Instruments and Foxboro System	Maintenance of measurement instruments
24-25 July	Sergio Angeles	Responsible for the wastewater treatment plant	Operations of the wastewater treatment plan and its electricity consumption
24-25 July	Luis Martínez	Laboratory Analyst	Chromatography analysis of HFC23 being destroyed at Quimobasicos plant 1

7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

/1/ PDD Quimobasicos v1.doc
PDD Quimobasicos v2.doc
PDD Quimobasicos v3.doc
PDD Quimobasicos v4.doc
/2/ CERs calculation Quimo v.1.xls
CERs calculation Quimo v.2.xls
CERs calculation Quimo v.3.xls
CERs calculation Quimo v.4.xls
/3/ LoA_DNA Mexico.jpg
/4/ Modalities of Communication.pdf

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

/5/ AM0001 v5.2.pdf
/6/ Identification of Applicable Env. Regulations_Procedure.PDF
/7/ Legal Regulations_Updated Review_2008.PDF
/8/ Values applied_CER calculation.doc
/9/ Board of directors_start date.pdf
/10/ Organigram & responsabilities.ppt
/11/ Production vs invoices.xls
/12/ Plasma unit_tech specs.pdf
/13/ Production of HCFC22 flowchart.ppt
/14/ Project execution plan.ppt
/15/ Monitoring Report_sample.pdf
/16/ Quimo Certifications .JPG
/17/ HFC23 release to atmosphere.JPG
/18/ New bolier.JPG
/19/ Boiler in operation.JPG
/20/ Flow meters HFC23.JPG
/21/ Compliance with Environmental Regs.PDF
/22/ Environmental License_Quimobasicos.PDF
/23/ Regulation for Stationary Emission Sources.PDF
/24/ Stakeholders Invitation.PDF
/25/ Stakeholders_Attendance List.PDF
/26/ Stakeholders Consultation_newspaper.PDF
/27/ Plasma unit_Troubleshooting Procedures.PDF
/28/ CO2 Emission MWh Iberdrola
/29/ Grid Emission Factor calculation
/30/ HFC23 regulation
/31/ Ratio 069
/32/ CDM consideration

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A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document for Quimobásicos HFC Recovery and Destruction Project (plant 2). It serves as a "**reality check**" on the project that is completed by a local assessor from SGS Panama

Issue	**Findings**	**Source/Means of Verification**	**Further Action / Clarification / Information Required?**
Date of revision	Not specified in PDD version 1	DR	~~CAR01~~ Ok
Assessment of Local Regulations	Necessary to corroborate the selection of the baseline scenario	Site visit interviews and collection of evidence	~~NIR02~~ Ok
Values applied in the CERs calculation	Several values were not properly justified	DR, interviews and collection of evidence	~~NIR03~~ Ok
Leakage	Several data that needed further evidence to be supported:	DR, interviews and collection of evidence	~~NIR04~~ Ok
Start date of the project activity	Evidence to support the chosen date was missing	collection of evidence	~~NIR05~~ Ok
Leakage	Discrepancies in the application of values for steam consumption	interviews and collection of evidence	~~CAR06~~ Ok
Leakage	Discrepancies in the application of values for generation of sludge	interviews and collection of evidence	~~CAR07~~ Ok
Project boundary / project emissions	It was observed that a wastewater treatment plant had not been declared in the PDD	Site visit observation	~~CAR08~~ Ok

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
Description of project activity	It was observed that a new boiler was being installed, yet it had not been declared in the PDD	Site visit observation	~~NIR09~~ Ok
Operational Management and Structure	No organizational chart showing the roles and responsibilities of those in charge of the CDM project had been provided	collection of evidence	~~NIR10~~ Ok
Application of the baseline methodology	Justification of the levels of production of HCFC22 during the year 2000 on the basis of market demand needed to be provided	Collection of evidence	~~NIR11~~ Ok

A.2 Annex 2: Validation Protocol

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

Requirement	Reference	Comments	Conclusion
1. All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	Marrakech Accords, CDM Modalities §30	Section A.3 (Project participants) indicates that the Party involved is Mexico as the host country. It has been verified at the UNFCCC website that Mexico ratified the Kyoto Protocol on 7th September 2000 (http://maindb.unfccc.int/public/country.pl?country=MX).	Y
2. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	Marrakech Accords, CDM Modalities §29 and §30	Not applicable. There is no Annex I identified in Section A.3. (Project Participants)	Y
3. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	Marrakech Accords, CDM Modalities §29 and §30 Kyoto Protocol Art. 12.2, Marrakech Accords, CDM Modalities §40a Ref.10	The project developer has obtained a Letter of approval by the host country that states it will assists Mexico in achieving sustainable development . See Ref.10 - LoA_DNA Mexico.jpg	Y

Requirement	Reference	Comments	Conclusion
4. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	The global stakeholders consultation was conducted accordingly and it was check at the following websites: http://cdm.unfccc.int/Projects/Validation/DB/RNTRYFB26XDZP1RRKTYMW1VSXO6K8W/view.html Starting date and closing date: 21 Jun 08 - 20 Jul 08 No comments were received during the consultation period. Note that SGS decided to make the Project Design Document (PDD) publicly available directly on the UNFCCC CDM website and therefore there was no need to upload the PDD onto the SGS CCP website.	Y
5. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	It is been checked that project participants have used the most recent version of the PDD template (Version 3) available on the UNFCCC website and all sections have been filled accordingly.	Y
6. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form Ref.11	The Modalities of Communication has been already submitted	Y

Requirement	Reference	Comments	Conclusion
7. For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?		Not applicable	

Table 2 PDD

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A. General Description of Project Activity					
A.1. Project Title					
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	Ref.01 - PDD	DR UNFCCC Website	The project activity is identified in both the PDD and UNFCCC website as: "Quimobásicos HFC Recovery and Destruction Project **(plant 2)**". Note that this project shall no be mixed up with Quimobásicos HFC Recovery and Destruction Project, which an already registered project (i.e. date: 14 Jun 06; Ref.N°: 0151). While taking into account the differentiation between both titles, marked by the addition of: (plant 2); then it is clear that no other project is registered under the same title.	Y	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	Ref.01 - PDD	DR	The original submission of the PDD was identified as "Version 1", dated June 2008. Since some issues were highlighted during the validation (CAR01), project proponents had to modified the PDD in order to address those issues and a new version was submitted identified as: "PDD Version 2", dated 18/08/2008 All the inconsistencies highlighted in CAR01 were addressed in version 2 of the PDD. Therefore CAR01 was closed out	CAR01	Y ~~CAR01~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.1.3. Is this in consistency with the time line of the project's history?	Ref.01 - PDD	DR	The dates of version 1 and version 2 of the PDD are consistent with the the time line of the project's history. Version 2 has been the result of the modifications that arose during the validation process	Y	Y
A.2. Description of the Project Activity					
A.2.1. Is the description delivering a transparent overview of the project activities?			The description presented in the PDD has an outstanding level of transparency that allows the reader for an easy understanding of the CDM project activity as well as of the operations of the entire chemical facility, namely Quimobasicos.	Y	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	Ref.01	DR	Overall, the information provided in the PDD was in compliance with the actual situation. However, it was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there was no reference to this WWTP within the project boundary section; a corrective action request (CAR08) was raised in order to address this issue. CAR08 was closed after the corrective action was implemented in the new version of the PDD (version 2). The wastewater treatment plant was added to the project boundary diagram of the section B.3 (PDD version 2).	CAR08	Y ~~CAR08~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?			Those inconsistencies (highlighted during the validation) across sections of the PDD have been already discussed in section A.1.2 above. All the remaining information provided is consistent with details provided in further chapters of the PDD.	Y	Y
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	Ref.01	DR	A corrective action request (CAR01) was raised in order to ask project participants to: i) Revise Table 1 in the PDD; as it had to indicate the word “host” alongside the line which mentions Mexico. After revising the new version of the PDD, it was observed that the required changes were adopted and the whole section has been appropriately filled, therefore the CAR01 was closed. The only project participant identified in Section A.3 is Quimobásicos S.A. de C.V.	CAR01	Y ~~CAR01~~
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	Ref.01	DR	The information provided in the last version of the PDD (version 2) regarding project participants is consistent with Annex I	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4. Technical Description of the Project Activity					
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude of the site indicated (decimal points)	Ref.01	Site visit	It was confirmed during the site visit that the project activity is located in the Municipality of Monterrey, city of Monterrey, State of Nuevo Leon, Mexico. The coordinates provided in the PDD and the picture of the site have been downloaded from Google Earth. They are in line with the observations made during the site visit	Y	Y
A.4.2. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	Ref.16	intervie w	Quimobásicos S.A. de C.V. is a legally registered company, founded in 1961, which is part of the well-recognised Mexican holding Cydsa. Quimobasicos indeed possess the ownership that allows the implementation of the project Further reference can be found at: http://www.quimobasicos.com.mx/ http://www.cydsa.com/ In addition, the certifications and awards given to Quimobasicos demonstrate their capabilities to implement this CDM activity in satisfactory manner. (see: Ref.16 - Quimo Certifications .JPG)	Y	Y
A.4.3. Is the category(ies) of the project activity correctly identified?	Ref.01 UNFCCC website	DR	Category of the project activity correctly identified as Scope 11: “Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride” The information also complies with the applied methodology AM0001 version 5.2	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.4. Does the project design engineering reflect current good practices?	Ref.12 Ref.13	DR Site visit	The CDM project, Quimobasicos (plant 2) reflects state of the art technology and the lay out of the plant is in accordance to best practices in the market for the production of HCFC22 (i.e. G22 to the effects of Quimobasicos). See references: Ref.12 - Plasma unit_tech specs.pdf Ref.13 - Production of HCFC22 flowchart.ppt	Y	Y
A.4.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	Ref.01 Ref.12	DR	The description of the technology to be applied is clear enough and the equipment described in Section A.4.3. (i.e. plasma arc) is capable of achieving the amount of emission reductions stated in table 2, Section A.4.4. of the PDD.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	Ref.01 Ref.18 Ref.19	DR interview	It was observed during the site visit that a new boiler is being installed (Ref.18 - New bolier.JPG). As this new equipment could be directly linked to the project activity as its source of steam supply; a new information request (NIR09) was raised in order to ask project participants to provide additional explanations concerning the impacts of this new boiler towards the CDM project. NIR09 was closed after project participants clarified that although the new boiler (observed during the site visit) will provide steam to the plasma unit and replace the old one; they decided to keep the current consumption of the old boiler (Ref.19 - Boiler in operation.JPG) (100 cubic meters per ton of steam) for the ex-ante specific gas consumption, in order to enhance the conservativeness of the ex-ante calculation.	Y	Y ~~NIR09~~
A.4.7. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	--	--	Please refer to A.4.4. and A.4.5.	Y	Y
A.4.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	Ref.01	DR	The project technology is not likely to be substituted by other or more efficient technologies within the project period.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.4.9. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	--	interview	Yes, the CDM project activity will require extensive training to keep the operations of the plasma destruction unit and data collection. Yet, it was confirmed during the site visit that Quimobasicos has a well-established training program for new recruits. The administration of Quimobascios has contemplated to hire more personnel once the installation and operations of the plasma unit begin	Y	Y
A.4.10. Does the project make provisions for meeting training and maintenance needs?	--	interview	See above A.4.9	Y	Y
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	Ref.14	interview	Yes, the project managers have developed a timetable that comprises almost seven months of work that goes from basic engineering to test and commissioning of the plasma unit. No risk for delays have been identified other than those related to the registration of the project activity before the CDM EB and UNFCCC.	Y	Y
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	Ref.01	DR	The table required for the indication of projected emission reductions (table 2, section a.4.4) has been correctly applied. It lists emission reductions starting on Oct-2008 till Sept. 2018, which is in line with the crediting period stated in Section C.2.2.2 as 10 years, and reflects the values presented in section B.6.4 summary of ex-ante calculation of emission reductions. The total emission reductions from the project are estimated to be 7,831,824t of CO2e over a 10 year crediting period, averaging 783,182t of CO2e annually.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
A.5. Public Funding					
A.5.1. Does the information on public funding provided conform with the actual situation or planning as presented by the project participants?	Ref.01	interview	Section A.4.5 says: no public funding from Annex1 Parties is received. Same is stated in Annex 2. This was verified during the site visit while interviewing the General Manager of the plant	Y	Y
A.5.2. Is all information provided consistent with details provided by further chapters of the PDD (in particular annex 2)?	--	--	See Section A.5.1 above	Y	Y
i. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a diversion of official development assistance	--	--	N/A	N/A	N/A
B. Baseline and Monitoring Methodology					
B.1. Choice and Applicability					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	Ref.01	DR	Project participants applied AM0001 version 5.2 at the moment of completion and submission of the PDD for the global stakeholder consultations.	Y	Y
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	Ref.01	Site visit	AM0001 version 5.2 is deemed as applicable to this type of project, which entails recovery and destruction HFC23 as a sub-product of the production of HCFC22	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.1.3. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	Ref.04 Ref.05	DR / interview	Yes, the project was in conformance with all the applicability conditions of the chosen methodology. Yet, in order to corroborate that the project was in full compliance, NIR02 was raised as the applicability conditions of ACM0001 estipulate that the project activity should occur in a country where no regulation requires the destruction of the total amount of HFC23 waste. In this regard, project participants were encouraged to provide evidence that demonstrate there is a system or procedure in place to identify and update all environmental legal requirements related to the project's activities. While conducting the site visit, it was observed that this chemical plant (Quimobasicos) is ISO-14001 certified and therefore its management system has a procedure to update the applicable environmental regulations on a regular basis. Further, it was verified that no regulations for hydrofluorocarbons existed in Mexico as of July 2008 when the last update of environmental laws was carried. As this meets the applicability conditions that ACM0001 requires, NIR02 was closed out.	NIR02	Y ~~NIR02~~
B.2. Project Boundary					
B.2.1. Are all emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	Ref.01	DR	All sources and gases listed in the PDD comply with the requirements of the methodology.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with EB guidance and the underlying methodology?			Not applicable		
B.2.3. Are the project's spatial boundaries (geographical) and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	Ref.01	DR	It was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there was no reference to this WWTP within the project boundary section (PDD v1), a corrective action request (CAR08) was raised in order to address this issue. CAR08 was closed after the corrective action was implemented in the new version of the PDD (version 2). The wastewater treatment plant was added to the project boundary diagram of the section B.3 (PDD version 2).	CAR08	Y ~~CAR08~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.3. Identification of the Baseline Scenario					
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?	Ref.01 Ref.16	DR Site visit	As compared to other approved CDM methodologies, AM001 v.5.2 does not prescribe a step by step procedure for the identification of the baseline scenario. It has been verified during this validation that there are no legal requirements to destroy HFC23 in Mexico (see B.1.3) and in addition to that there is no economic incentive to Quimobasicos to make significant investment for destruction of HFC23 other than the CDM benefits. Therefore, it can be reasonably assumed that emissions of HFC23 will continue to be released to the atmosphere in the absence of the project. (See Ref.17 - HFC23 released to atmosphere.JPG)	Y	Y
B.3.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??			See above B.3.1.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.3.3. Is the choice of the baseline compatible with the available data?	Ref.01 Ref.09	DR Interviews, site visit	The selection of the baseline from the possible scenarios is consistent with available data. As per AM0001, Q_HCFCehist is determined as the maximum historical annual HCFC-22 equivalent production level during any of the last three (3) years between beginning of the year 2000 and the end of the year 2004, for which HCFC-22 production occurred. Considering that Qhimobasicos is a swing plant only those years in which HCFC-22 occurred in both lines should be taken into account. Having this said, the historical production of HCFC22 was set at 5466 tonnes/year, and was defined as Q_HCFCmax for ex-ante calculation. This valued was verified during the site visit via revision of records of production. Satisfactory evidence was provided during the site visit in order to corroborate the historical production of CFCs and HCFC for the period of 2000-2005. The records actually matched the amount of HCFC22 presented in Table 5 of the PDD (i.e. 225 tonnes), which is in line with ACM0001 v.5.2 that reads: "The CFC production at swing plants should be included as an equivalent HCFC-22 production in Q_HCFCeHist only for those production lines and only for those years in which HCFC-22 was actually produced in that production line". Further, project participants provided copy of the production vs. sales records in order to support the abovementioned figure of 225 tonnes of HCFC for the year 2000. Yet, this NIR11 has been raised in order to ask project participants to further explain how this production of 225 tonnes could be linked or cross check against orders placed by clients (actual demand) and sales records that can evidence actual delivery. After the required additional information was provided, NIR11 was closed. It is now clear, as	NIR11	Y ~~NIR11~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	--	--	Not applicable. No other baseline scenario different than release of HFC23 to the atmosphere was identified.	n.a.	n.a.
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?			See above B.3.1.		
B.4. Additionality					
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as given by the methodology and by following all the required steps?	Ref.01	DR	AM0001 v.5.2. states: *"In the absence of regulations requiring HFC 23 destruction it is typically released to the atmosphere because a destruction facility entails significant capital and operating costs and the host entity has no direct economic incentive to incur these costs".* This is the case of Quimobasicos and the project justifies its additionality on what it's prescribed by the methodology.	Y	Y
B.4.2. In case of using the additionality tool: Is the 'Additionality Tool' used in the PDD latest version? If an earlier version has been used, do the changes impact the discussion in the PDD? Are all steps followed in a transparent manner?	n.a.	n.a.	Not applicable	n.a.	n.a.

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project If the project has started before the validation is it discussed how the CDM was taken into account in the decision to go ahead with the project activity	Ref.01	DR interviews	The start date of the project activity is marked as 30 May 2008 whereas the methodology states that *"In the absence of regulations requiring HFC 23 destruction it is typically released to the atmosphere because a destruction facility entails significant capital and operating costs and the host entity has no direct economic incentive to incur these costs"* The board of directors will keep any investments decisions subject to the final outcome of the validation process. This is appropriate.	Y	Y
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios B.4.5. Do the identified alternative include technologies and practices that include outputs (e.g) cement or services comparable with the proposed CDM project activity	Ref.01	DR	See B.4.1.	Y	Y
B.4.6. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?	n.a.	n.a.	Investment analysis, not applicable. See B.4.1.	n.a.	n.a.
B.4.7. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	n.a.	n.a.	Barrier analysis, not applicable. See B.4.1.	n.a.	n.a.

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.4.8. Has it been shown that the project is not common practice?	n.a.	n.a.	Common practice analysis, not applicable. See B.4.1.	n.a.	n.a.
B.4.9. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario			There is no legal regulation or economic incentive that would make destruction of HFC23 (the project) a viable and realistic baseline scenario	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5. Application of the Baseline Methodology					
B.5.1. Has the approved methodology been applied correctly for determining **baseline emissions**?	Ref.01	DR	The methodology is applied as prescribed and the PDD clearly states which equations were used in calculating baseline emission. CAR14 was raised on the basis of what the methodology says in page 5/17 that: "The historical waste generation rate w shall be estimated for the three (3) most recent years of operation up to 2004" given the fact that project developers calculated their w factor using data from year 2000, which seemed to be out of the range 2000-2004 as the most recent three years of operations. In their response, project developers explained that in their interpretation of the methodology "w shall be estimated for the three (3) most recent years of operation up to 2004", which is an open statement that is not limited to the vintage 2000-2004 as it was originally interpreted when this CAR was raised. Since the methodology suggests using either recent 3 years data or conservative value. The clarification provided by project developers was not accepted as it was using only a recent year data and not recent 3 years data. Project participant was asked to provide three years data for calculation of 'w' factor or use conservative value of 1.5%. After it was verified that the w factor used in the PDD and the CERs Spreadsheet is the conservative value of 1.5% in accordance with the methodology. Hence CAR14 was closed out.	Y CAR14	Y ~~CAR14~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5.2. Has the approved methodology been applied correctly for determining **project emissions**?	Ref.01	DR	Project emissions are correctly estimated. It was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there was no reference to this WWTP in the emissions due to the destruction process (E_DPy) and leakage (Ly); (PDD v1); a corrective action request (CAR08) was raised in order to address this issue. CAR08 was closed after the corrective action was implemented in the new version of the PDD (version 2). Since, the methodology states: *"The steam and electricity are assumed to be purchased, so the emissions associated with these energy sources are included in the leakage calculation"* (See page 2/17 AM0001 v.5.2); the emissions associated to the WWTP were included in the parameter Q_Power under the leakage section. For the purposes of ex-ante calculations of CERs, the PDD v.2 kept the value of 1095 MWh. This is permissible as this is a monitored parameter, thus no more issues were raised in this regard.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5.3. Has the approved methodology been applied correctly for determining **leakage**?	Ref.01	DR	NIR04 has been raised because the Leakage section (PDD v1) contained several data that needed further evidence to be supported: d. Natural gas emission factor (0.001987 tCO2/m3). Provide reference. e. A total quantity of 300 tonnes of solid waste per year is estimated to be generated. Please provide records or explanations that support this estimate f. Assuming that each truck has a specific fuel conservative consumption of 3 kilometres per litre of diesel, and a capacity of 10 tonnes of solid waste. Provide evidence that support this assumption. NIR04 was closed after project proponents clarified that: a. The emission factor for natural gas was derived from the natural gas lower heating value (0.038116 GJ/m3) taken from the Secretary of energy "Balance Nacional de Energía 2005", Table 20, Page 84, line 5 and the natural gas emission factor of 56.1 found in Volume 2 (Energy), of the IPCC 2006 Guidelines for Greenhouse Gas Inventories. b. The generation of solid waste is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant. c. The diesel consumption by trucks is no longer relevant because no project emissions from transport will be	NIR04 CAR06 CAR07	Y ~~NIR04~~ ~~CAR06~~ ~~CAR08~~

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.5.4. Where applicable, has the approved methodology been applied correctly for the **direct calculation of emission reductions**	Ref.01 Ref.02	DR	See B.7.1.	Y	Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct	--	--	Not applicable. AM0001 v.5.2 does not include options that could be open to the project proponents judgment such as: alternative scenarios; methods for estimation of baseline emissions; or default values	n.a.	n.a.
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	Ref.01	DR	No major room for uncertainties has been observed in the calculations. The CER spreadsheet is a good reflection of what is prescribed by the methodology. Regarding uncertainties associated to data sources (e.g. measurement equipment); quality assurance and control procedures were established as indicated by the methodology in order to keep instruments under a regular maintenance program, so they sustain their margin of error within the manufacturer's tolerance.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.6. Ex-ante Data and Parameters Used					
B.6.1. Are the data provided in compliance with the methodology?	Ref.01	DR	Parameters needed for ex ante calculations are correctly included, for instance: - Maximum annual production of HCFC-22 at the originating plant that is eligible for crediting (5466 metric tones per year) - Waste generation rate (HFC23)/(HCFC 22) for the originating plant (metric tonsof HFC23 per metric tons of HCFC22) 1.5% - Global warming potential of HFC23 = 11700 - Electricity emission factor = 1.3 tCO2e/MWh	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	Ref.01	DR	The following references have been correctly provided for the following parameters: - Maximum annual production of HCFC-22 at the originating plant that is eligible for crediting (5466 metric tones per year) - Global warming potential of HFC23 = 11700 IPCC CAR13 e. was raised to ask project participants to include in the PDD the reference that justifies the use of Emission Factor: 0.3614 tCO2/MWh for the power plant that supplies electricity to Quimobasicos. Section B.6.2 was modified after project participants specified the section that mentions the emission factor in the internal report (Ref.28 – CO2 Emission MWh Iberdrola) of the power plant Iberdrola, where it shows the amount 359.8675KgCO2/MWh. The emission factor was then changed to 0.3599 tonsCO2/MWh and used as the Electricity Grid emission factor (Ref.29 – Grid Emission Factor Calculation). By the same token, NIR 18 was raised to ask project participants to provide the full document for the sake of transparency. Taking into account that Iberdrola refused to disclose the electricity generation and fuel consumption as it is confidential data, project proponents decided to use the 1.3 tCO2e/MWh as prescribed by the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" for cases where there is electricity consumption from the grid (Scenario A) .This default factor actually penalised project proponents and enhanced the conservativeness of the PDD because it is greater than the emission factor that was originally presented. NIR 18 was closed out after the information was verified through the calculations of project	Y CAR13	Y ~~CAR13~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.6.3. Is the vintage of the baseline data correct?	Ref.01	DR	The vintage applied for the ex ante estimation of baseline emissions seems to be adequate.	Y	Y
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining **emission reductions**?	Ref.01 Ref.02	DR	See Section B.5	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

<table>
<tr><th>Checklist Question</th><th>Ref. ID</th><th>MoV*</th><th>Comments</th><th>Draft Concl</th><th>Final Concl</th></tr>
<tr><td>B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?</td><td>Ref.01
Ref.02</td><td>DR</td><td>The PDD clearly documents how each equation is applied and the actual calculations are clearly presented in the document: Ref.02 - CERs calculation Quimo.xls

The following changes came out as a result of the revisions made during the validation:

<table>
<tr><th>PDD</th><th>BEs (tCO_2e)</th><th>PEs (tCO_2e)</th><th>LEs (tCO_2e)</th><th>ERs (tCO_2e)</th></tr>
<tr><td>PDD v.1</td><td>13,519,466</td><td>740</td><td>4,112</td><td>13,514,614</td></tr>
<tr><td>PDD v.2</td><td>13,756,109</td><td>753</td><td>4,364</td><td>13,750,993</td></tr>
<tr><td>PDD v.4</td><td>7,846,895</td><td>429</td><td>14,641</td><td>7,831,824</td></tr>
</table>

BEs: Revisions were made to change the factor w from 2.64% in version 1 to 2.63% in version 2 of the PDD. It is important to note that in the final version of the PDD project proponents decided to use the default value of 1.5% prescribed by the methodology for the factor w in cases where there is not sufficient data to estimate it. See CAR14 for further details

Another change was on the purity value that was changed from 80% to 81.8% (See Section B.7.4 – NIR03)

PEs: as project emissions depend on the quantity of HFC 23 supplied to the decomposition process, project emissions decreased as a result of the changes made to the amount of wastes treated under the project activity.

LEs: changes in the estimates of leakage</td><td>Y</td><td>Y</td></tr>
</table>

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.7.3. Have conservative assumptions been used to calculate emission reductions?	Ref.01 Ref.02	DR	See B.3.4.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.7.4. Is the projection based on provable input parameter?	Ref.01 Ref.02	DR interviews	After revising the spreadsheet for the calculation of CERs (Ref.02 - CERs calculation Quimo v.1.xls); NIR03 was raised in order to ask project participants to provide evidence that could justify the application of the following values: a. Destruction Efficiency of HFC 23 (99.99%) b. Specific natural gas consumption of the boiler (100 m3/ton steam) c. Electricity consumption by the decomposition process (1095 MWh/year) d. Emission factor of the isolated power plant (0.364 tCO2e/MWh) e. Steam consumption by the decomposition process 64 tonnes/year f. Purity of HFC23 waste gas stream (80%). Details of the gas chromatography as those may differ depending on the manufacturer NIR03 was closed out after having satisfactorily: a. Verified (in the website provided by the project proponent) that according to the manufacturer's specifications the plasma unit can achieve a destruction efficiency of 99.9999% http://www.plascon.com.au/technology-overview.html b. Confirmed (via interviews with the boiler operator) that the current natural gas consumption is approximately 100 cubic meters per ton of steam generated. c. Verified (via revision of historical	NIR03	Y ~~NIR03~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	Ref.01 Ref.02	DR	Projection was found to be based on same procedures to be used for later monitoring.	Y	Y
ii. Is the calculation of the emission reduction correct?	Ref.01 Ref.02	DR	See Section B.5	Y	Y
B.8. Emission Reductions					
B.8.1. Will the project result in fewer GHG emissions than the baseline scenario?	Ref.01	DR	See Section B.4.9	Y	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	Ref.01	DR	See section A.4.12.	Y	Y
B.8.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	Ref.01	DR	Projections were found in line with the time schedule for the project's implementation provided and the indicated crediting period of 10 years.	Y	Y
B.9. Monitoring Methodology					
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameter to be monitored and further information provided by the PDD? Are all parameters and data that is available at validation consistent with the approved methodology	Ref.01	DR	The monitoring methodology is consistent. Description of the monitored parameters and required measurement procedures has been provided in an adequate manner	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	Ref.01	DR	It was checked and verified that critical parameters for the estimation of baseline and project emissions are included in the monitoring methodology.	Y	Y
B.10. Data and Parameters Monitored					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	Ref.01 Ref.15	DR	The monitoring plan provide clear and appropriate procedures for training, data collection and recording, quality control and quality assurance and equipment calibration.	Y	Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied?	Ref.01 Ref.15	DR	The GHG indicators (parameters to be monitored) are in full compliance with the prescriptions of the methodology.	Y	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	Ref.01 Ref.20	DR	The main indicators needed for the estimation of reduction of GHG emissions are: - Quantity of HFC23 supplied to the destruction process (Ref.20 - flow meters HFC23.JPG) - Purity of the HFC23 supplied to the destruction process - The quantity of HCFC 22 produced in the plant generating the HFC23 waste And the monitoring procedures for these parameters were clearly described in section B.7.1 of the PDD	Y	Y

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Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.10.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	Ref.01 Ref.15	DR	Sections B.7.1, B.7.2 (i.e. maintenance and Calibration of monitoring equipment) and Annex 4 of PDD did not state the frequency of calibration for the flow meters used to monitor the quantity of HFC 23 destroyed (q_HFC23y) as established prescribed by AM001. Based on this, a corrective action request (CAR12) was raised in order to ask project participants to specify the calibration frequency of the HFC 23 flow meter, in section B.7.1, B.7.2 and Annex 4 of the PDD. In addition, these sections should also specify the frequency of calibration for the rest of instruments used for data monitoring purposes. After the project participant provided a new version of the PDD (Ref.01 – PDD quimobasicos v3) CAR 12 was closed. It is clarified that the meters are to undergo calibration every six months. This is in compliance with AM0001 version 5.2. Also a footnote was added to section B.7.2 to refer to section B.7.1 for frequency of calibration of the equipment.	CAR12	Y ~~CAR12~~
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	Ref.01 Ref.15	DR	See B.10.4	Y	Y
B.10.6. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	Ref.01 Ref.15	DR	See B.10.1	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.10.7. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	Ref.01 Ref.15	DR	See B.5.2 and B.7.2	Y	Y
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures					
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	Ref.01 Ref.15	DR	Yes, these indications are given in Annex 4 of the PDD. Basically, Data from the Project will be checked to identify possible errors or omissions. All records will be checked for completeness on a regular basis.	Y	Y
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?					
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?			See B.11.1		
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	--	interviews and DR	The manipulation of data is very limited. The majority of the excel books for data entry and CERs calculations are blocked and restricted, so values cannot be modified by the staff. Besides, once the project is running data will supposedly come from measurement instruments that will be calibrated on regular basis as per manufacturer's recommendations	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	None	interviews and DR	No tendencies of overestimation of emission reductions were observed during the validation process. The ultimate calculation of real emission reductions is based on monitored parameters and it will take place after the implementation of the project during the verification exercise conducted by an accredited DOE	Y	Y
B.12. Operational and Management Structure					
B.12.1. Is the authority and responsibility of project management clearly described?	Ref.08	interview	Although a high level of competence was observed during the side visit amongst the personnel that works for Quimobasicos in terms of their technical expertise and skills on data collection tasks, there is still no formal description of their roles, levels of authority and responsibilities for the purposes of the operations of the CDM project. For this reason NIR10 has been raised in order to request this information. NIR10 was closed after project proponents provided the organisation chart showing the structure of the personnel related to the operations of the plasma unit and their responsibilities. The roles were verified and they cover all the responsibilities needed for the good operations of the CDM project activity (i.e. top manager, site manager, measurement instruments operators, lab analysis, etc.)	NIR10	Y ~~NIR10~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	Ref.08	interview	See Section B.12.1. above	Y	Y
B.12.3. Are procedures identified for training of monitoring personnel?	n.a.	interview	See Section A.4.9	Y	Y
B.13. Monitoring Plan (Annex 4)					
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	Ref.01 Ref.15	DR	The PDD describes the “Monitoring Plan” in Annex 4. This information is sufficient and specific to address the conditions of the project.	Y	Y
B.13.2. Does the monitoring plan completely describes all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	Ref.01 Ref.15		Yes the monitoring plan contains for QA/QC Procedures (on the monitored parameters)	Y	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	Ref.01 Ref.15	DR	The monitoring information presented in the PDD does specify the positioning of the measurement instruments to be employed to collect monitored data for the main parameters needed to calculate emission reductions.	Y	Y
B.13.4. Are procedures identified for calibration of monitoring equipment?	Ref.01 Ref.15	DR	Yes, the monitoring plan includes procedures for calibration of monitoring equipment as well as its frequency an responsible personnel for this task	Y	Y
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	Ref.01 Ref.15	DR	Same as B.13.4	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.13.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	Ref.01 Ref.15	DR	Measurements will be taken at the beginning of each shift and every 2 hours during the shift. The monitoring plan also specifies that "The staff responsible for project monitoring must complete the electronic worksheets on a monthly basis"	Y	Y
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems??	Ref.01 Ref.15 Ref.27	DR	During the interviews the staff responsible for the project expressed that in case of missing data, they themselves will accept the penalty of not claiming emissions reductions for those periods. Further, they will have a procedure in place for the correct, continuous and safe operation of the plasma unit, which includes a troubleshooting procedure as well (Ref.27 - Plasma unit_Troubleshooting Procedures.PDF)	Y	Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	Ref.01 Ref.15	DR	The sample of the monitoring report (Ref.15) provided by project developers mentions some auditing process followed in order to determine the emission reductions	Y	Y
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	Ref.01 Ref.15	DR	See B.13.8	Y	Y
B.14. Baseline Details					
B.14.1. Is there any indication of a date when determine the baseline?	Ref.01	DR	According to the PDD, the baseline study was completed on 2 June 2008	Y	Y
B.14.2. Is this in consistency with the time line of the PDD history?	Ref.01	DR	This in consistency with the time line of the PDD history	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?			Annex 3 contains the following information: - Maximum HCFC22 production elegible - Historical HCFC-22 production (in metric tonnes) - Determination of Factor w This is a fair representation of the main values applied in the estimation of baseline emissions	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
C. **Duration of the Project / Crediting Period**					

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	Ref.01 Ref.07	DR	The PDD mentions April 30th 2008 as the starting date of the project activity (when the investment was first approved at Cydsa's Board of Directors). NIR05 was raised in order to request project participants to provide evidence to support this day as the start of the project activity. NIR05 was closed after project proponents submitted minutes from the board of directors (Ref.07 - Board of directors_start date.pdf) held on April 30th 2008 where an Addendum to the Budget of Quimobasicos for the year 2008 was presented. The addendum basically states that an investment of US 2,160,000.00 was to be added to the original approved budget for year 2008 (US 2,514,000.00) in order to install a spare inconel reactor to assure the safety and continuity of operations. Further, the minutes expressed that investment needed for the installation of a second plasma technology destruction unit were to be approved so long the Mexican Government and the UNFCCC, CDM authorities gave their consent to its implementation. This was in line with the Guidelines for completing the Project Design Document (CDM-PDD) version 06.2 that states in Section B.5 that *"If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/**or other corporate**) documentation that was available at, or prior to, the start of the project activity"* and therefore NIR05 was closed out. NIR16 was raised to ask project participant to provide proof of serious consideration of CDM because the start date of the project is before	NIR05	Y ~~NIR05~~

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	Ref.01	DR	The project crediting period is clearly defined as 10 years (fixed), as per Section C.2.2.2 of the PDD. This is reasonable and conservative given the expected operational lifetime of the required equipment	Y	Y
C.1.3. Does the project's operational lifetime exceed the crediting period	Ref.12	Site visit	The visual inspection and according to the characteristics of the plasma unit, the project's operational lifetime is expected to exceed the crediting period	Y	Y
D. Environmental Impacts					
D.1.1. Does the project comply with environmental legislation in the host country?	Ref.01 Ref.21 Ref.22	DR intervie w	Based on previous experience with Quimobasicos plant 1 where the project developers had actually conducted an EIA for the installation of the plasma destruction unit (same technology and arrangement planned for Quimobasicos plant 2); the environmental authority indicated that such project does not require such environmental assessment and therefore its implementation can be done. This explanation was given by the General Manager and copy of this approval was surrendered by the project developers (See Ref.21 - Compliance with Environmental Regs.PDF) Project developers also provided Environmental License for the Quimobasicos facilities Ref.22	Y	Y
D.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?	Ref.01 Ref.21	DR intervie w	See Section D.1.1. above	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	Ref.01 Ref.21	DR interview	See Section D.1.1. above	Y	Y
D.1.4. Will the project create any adverse environmental effects?	Ref.01	DR	The project is not expected to create any adverse environmental effects. On the contrary, the destruction of HFC23 will have a positive effect in the overall reduction of ghg emissions.	Y	Y
D.1.5. Are transboundary environmental impacts considered in the analysis?	Ref.01 Ref.23	DR Site visit	Emissions from electricity consumption (generated by off-site power plants) and steam consumption (generated) by on-site boilers have been already considered in the leakage section. This emissions are controlled by SEMARNAT via regulation of emissions from stationary sources (Ref.23 - Regulation for Stationary Emission Sources.PDF)	Y	Y
D.1.6. Have identified environmental impacts been addressed in the project design?	Ref.01	DR	There are no significant environmental impacts identified with the project activity in the PDD.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
E. Stakeholder Comments					
E.1.1. Have relevant stakeholders been consulted?	Ref.01 Ref.24	DR interviews	PDD Section E.1 states that Quimobasicos conducted a stakeholder consultation program on May, 2008. It has also been informed in the PDD that letters were sent to direct stakeholders such as the Municipality of Monterrey, the City Hall, the Environmental State Department (SEMARNAT) and others. The list where the invitees acknowledged receipt of the invitation letter (Ref.24) was provided as evidence of this process (121 stakeholders participated of this consultation. See Ref.25)	Y	Y
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	Ref.01 Ref.01	DR interviews	The Section E.1 states On May 6th and 7th, two public announcements have been published in two different local newspapers in order to invite the surroundings neighbourhoods and communities, and other relevant stakeholders. Copy of the newspaper was coll6cted as evidence during the site visit (see Ref.25 - Stakeholders Consultation_newspaper.PDF)	Y	Y
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	--	--	Not applicable. The DNA does not have specific requirements to the extent of the CDM stakeholder consultation.	n.a.	n.a.

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref. ID	MoV*	Comments	Draft Concl	Final Concl
E.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	Ref.01	DR interviews	The process followed during the stakeholder consultation is described in a complete and transparent manner in section E.1 of the PDD. It allows for an easy identification of the following: Date: May 12th, 2008 Place: Hotel Novotel, Lazaro Cardenas 3000, Dr. Atl. Col. Valle Oriente, San Pedro, Monterrey, México. Newspaper announcements: see Section E.1.2. above Invitees and attendees: tables included in the last version of the PDD	Y	Y
E.1.5. Is a summary of the stakeholder comments received provided?	Ref.01	DR interviews	Section E.2 of the PDD includes a summary of the comments received. This is adequate	Y	Y
E.1.6. Has due account been taken of any stakeholder comments received?	Ref.01	DR interviews	No major issues arose out of the comments submitted by stakeholders. All their questions were answered during that forum.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

References

Reference ID	Title / Description	Comments
Ref.01	- PDD quimobasicos v1.doc	No comment
Ref.01	- PDD quimobasicos v2.doc	No comment
Ref.01	- PDD quimobasicos v3.doc	No comment
Ref.01	- PDD quimobasicos v4.doc	No comment
Ref.02	- CERs calculation Quimo v.1.xls	No comment
Ref.02	- CERs calculation Quimo v.2.xls	No comment
Ref.02	- CERs calculation Quimo v.3.xls	No comment
Ref.02	- CERs calculation Quimo v.4.xls	No comment
Ref.03	- AM0001 v5.2.pdf	No comment
Ref.04	- Identification of Applicable Env. Regulations_Procedure.PDF	See Section B.1.3. Evidence provided to demonstrate there is a system or procedure in place to identify and update all environmental legal requirements related to the project's activities.
Ref.05	- Legal Regulations_Updated Review_2008.PDF	See Section B.1.3. Evidence that shows that no regulations for hydrofluorocarbons existed in Mexico as of July 2008 when the last update of environmental laws was carried.
Ref.06	- Values applied_CER calculation.doc	See Section B.5.3. Evidence that supports the source of data and rationale behind values applied in the calculation of CERs
Ref.07	- Board of directors_start date.pdf	See Section C.1.1. Corporate documents that shows when the Board of directors decided to go ahead with the CDM project activity
Ref.08	- Organigram & responsabilities.ppt	See B.12.1 Organisation chart showing the structure of the personnel related to the operations of the plasma unit and their responsibilities

* MoV = Means of Verification, DR= Document Review, I= Interview

Reference ID	Title / Description	Comments
Ref.09	- Production vs invoices.xls	See Section B.3.3. As Quimobasicos is a swing plant, this evidence was provided to show that the production of plant 2 for the year 2000 actually responded to market demands.
Ref.10	- LoA_DNA Mexico.jpg	No comment. See Table 1, item 3
Ref.11	- Modalities of Communication.pdf	No comment. See Table 1, item 6
Ref.12	- Plasma unit_tech specs.pdf	See Section A.4.4. Technical description of the plasma unit
Ref.13	- Production of HCFC22 flowchart.ppt	See Section A.4.4. Lay out of the chemical plant
Ref.14	- Project execution plan.ppt	See Section A.4.11. Schedule describing the implementation of the project
Ref.15	- Monitoring Report_sample.pdf	See Section B.13 Sample of the monitoring plan based on the experience of Quimobasicos plant 1
Ref.16	- Quimo Certifications .JPG	See Section A.4.2. Certifications and awards given to Quimobasicos demonstrate their capabilities to implement this CDM activity in satisfactory manner.
Ref.17	- HFC23 release to atmosphere.JPG	See Section B.3.1. Picture that shows where the HFC23 is being released to the atmosphere
Ref.18	- New bolier.JPG	See Section A.4.6. Picture of the new boiler being installed at Quimobasicos
Ref.19	- Boiler in operation.JPG	See Section A.4.6. Picture of the boiler in operation
Ref.20	- flow meters HFC23.JPG	See Section B.10.3 Picture of the flow meters installed to measured the amount of HFC23 being destroyed at Quimobasicos plant 1
Ref.21	- Compliance with Environmental Regs.PDF	See Section D.1.1 Letter from the environmental authorities stating that this kind of projects do not require an EIA
Ref.22	- Environmental License_Quimobasicos.PDF	No comment
Ref.23	- Regulation for Stationary Emission Sources.PDF	See Section D.1.4. Environmental regulation to control emissions from stationary sources

* MoV = Means of Verification, DR= Document Review, I= Interview

Reference ID	Title / Description	Comments
Ref.24	- Stakeholders Invitation.PDF	See Section E.1.1. Invitation to the Stakeholder consultation
Ref.25	- Stakeholders_Attendance List.PDF	See Section E.1.1. List where the invitees acknowledged participation of this consultation.
Ref.26	- Stakeholders Consultation_newspaper.PDF	See Section E.1.2. Newspaper announcement of the Stakeholder consultation
Ref.27	- Plasma unit_Troubleshooting Procedures.PDF	See Section B.13.7 Procedure for the continuous and safe operation of the plasma unit.

* MoV = Means of Verification, DR= Document Review, I= Interview

A.3 Annex 3: Overview of Findings

Findings Overview

Findings from validation of **Quimobásicos** HFC Recovery and Destruction Project (plant 2)
Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.

Description of Table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	Refers to the section number in the Validation Protocol (checklist)
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.
Please Note: This is an open list and more findings may be added as validation progresses.

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**01**	Type:	CAR	Issue :	Changes in the PDD	Ref.:	A.1.2
Lead Assessor Comment:					Date: 22/07/2008		
A corrective action request (CAR01) has been raised in order to ask project participants to: a. Make the necessary modifications in the “Date of revision” because the information presented in the first version of the PDD was not complete. It is only informed “June 2008”. b. Revise Table 1 in the PDD. It should be indicated (host) alongside the line which mentions Mexico. Similarly, in the second column the table should indicate if Quimobasicos is a private or public entity. c. Make a minor editorial change in the title of the second column of Table 3. In the latest version of the PDD guidelines, this column is named as “Annual estimation of emission reductions in tonnes of CO2 e” , not as “Total Annual estimation of emission reductions in tonnes of CO2e”							
Project Participant Response:					Date: *04/09/2008*		
a. Date of revision has been changed to August 18th 2008. b. Done. c. Done.							
Acceptance and Close out by Lead Assessor:					Date: 10/09/2008		
Information Provided: New version of the PDD. Version 2 Date was correctly inserted; table of participants was revised and table 3 revised.					Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc		

Reasoning for not acceptance or acceptance and close out: After revising the new version of the PDD, it has been observed that the required changes have been done accordingly modified and therefore the CAR01 has been closed.

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**02**	Type:	NIR	Issue :	Assessment of Local Regulations	Ref.:	B.1 , B.4
Lead Assessor Comment:					Date: 22/07/2008		
NIR02 has been raised because the applicability conditions of ACM0001 estipulate that the project activity should occur in a country where no regulation requires the destruction of the total amount of HFC23 waste. In this regard, project participants are encouraged to provide evidence that demonstrate there is a system or procedure in place to identify and update all legal requirements related to the project's activities.							
Project Participant Response:					Date: *04/09/2008*		
As discussed during site visit, Quimobasicos is certified ISO-14001. Its procedures are thus implemented and ensure to update all legal requirements related to the project's activities. It has been already verified that the HFC23 is not contemplated in the ISO-14001 procedure, although the latter is being continuously updated in order to be constantly in line with current national regulation.							
Acceptance and Close out by Lead Assessor:					Date: 10/09/2008		
Information Provided: Project proponents provided: A procedure that defines how to keep the record of environmental applicable laws updated as well as those responsible for it. Last revision of applicable laws where it was verified that no regulations for hydrofluorocarbons existed as of July 2008 when the last update of environmental laws was carried. Information verified Document Review					Verified Document Reference: Ref.04 - Identification of Applicable Env. Regulations_Procedure.pdf Ref.05 - Legal Regulations_Updated Review_2008.pdf		
Reasoning for not acceptance or acceptance and close out: While conducting the site visit, it was observed that this chemical plant (Quimobasicos) is ISO-14001 certified and therefore its management system has a procedure to update the applicable environmental regulations on a regular basis. Further, it was verified that no regulations for hydrofluorocarbons existed as of July 2008 when the last update of environmental laws was carried. As this meets the applicability conditions that ACM0001 requires, NIR02 was closed out.							

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**03**	Type:	NIR	Issue :	Values applied in the CERs calculation	Ref.:	
Lead Assessor Comment:					Date: 22/07/2008		
After revising the spreadsheet for the calculation of CERs (Ref.02 - CERs calculation Quimo v.1.xls); NIR03 has been raised in order to ask project participants to provide evidence that can justify the application of the following values: a. Destruction Efficiency of HFC 23 (99.99%) b. Specific natural gas consumption of the boiler (100 m3/ton steam) c. Electricity consumption by the decomposition process (1095 MWh/year) d. Emission factor of the isolated power plant (0.364 tCO2e/MWh) e. Steam consumption by the decomposition process 64 tonnes/year f. Purity of HFC23 waste gas stream (80%). Details of the gas chromatography as those may differ depending on the manufacturer							
Project Participant Response:					Date: *04/09/2008*		

a. *Destruction efficiency: the nominal efficiency of the plasma unit is set at 99.9999%. See http://www.plascon.com.au/technology-overview.html*

b. *Specific natural gas consumption (100 m3/ton steam): this estimation is based on the existing boiler, located in front of the HCFC plant, in the utility section, and visited during the validation site visit. As per the interview with the boiler operator, the current gas consumption is approximately 100 cubic meters per ton of steam generated. However, the new boiler (currently in construction) will have a higher efficiency, hence a lower gas consumption per ton of steam produced. Nonetheless, for conservativeness purposes, it has been decided to keep the current consumption (100 cubic meters per ton of steam) as the ex-ante specific gas consumption.*

c. *Electricity consumption: During the first year of crediting period of Plant #1 (June 14th 2006 to June 13th 2007), the electricity consumption has been 1095.576 MWh, as showed during the site visit and as evidenced in the document "NIR3", which shows the records of electricity consumption per month. Besides, the records of each month electricity consumption have been delivered to the DOE in order to evidence the file "NIR3", which were only Excel tables. The document is a binder called "Consumo de vapor y energia electrica" and includes the electricity internal registry for each month, with sample for the first and the last day of each month. Hence this value (1095 MWh/year) is chosen for ex-ante calculation, and will be monitored ex-post, according to the monitoring plan defined in the PDD.*

d. *Power plant emission factor: Iberdrola emission factor is 0.3614 tCO2e/MWh, as shown in document "NIR3".*

e. *Steam consumption: During the second crediting year (June 4th 2007 to June 3th 2008), the steam consumption records show a consumption of 190.489 tonnes of steam. See "NIR3", third table, as well as the document called "Consumo de vapor y energia electrica", which includes the steam internal registry for each month, with sample for the first and the last day of each month. Hence this value (190 tons of steam per year)) is chosen for ex-ante calculation, and will be monitored ex-post, according to the monitoring plan defined in the PDD.*

f. *Purity: The value of the year 2007 has been identified as the lowest purity measured, with anHFC23 purity of 81.8%, as shown in the purity records of "NIR3". This value is evidenced in the binder called " PLASMA – TABLA DE ESTADISTICA CROMATOGRAFIAS Y REPORTES", which include all the measurements of January 2007, and gives a value of 81.863%. A value of 81.8% is chosen for ex-ante calculations, and will be monitored ex-post, according to the monitoring plan defined in the PDD.*

Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: Document showing steam consumption Hard copy of the records of each month electricity consumption Information verified Document Review	Verified Document Reference: Ref.06 - Values applied_CER calculation.doc

Reasoning for not acceptance or acceptance and close out:
NIR03 was closed out after having satisfactorily:

a. Verified (in the website provided by the project proponent) that according to the manufacturer's specifications the plasma unit can achieve a destruction efficiency of 99.9999%

b. Confirmed (via interviews with the boiler operator) that the current natural gas consumption is approximately 100 cubic meters per ton of steam generated.

c. Verified (via revision of historical records) that the value applied for the electricity consumption comes from the monthly records of readings taken from the meters from June 2006 to may 2007. These values are based on the electricity consumption of Quimobasicos plant 1 (Registered CMD project, ref# 0151). See: Ref.06 - Ref.06 - Values applied_CER calculation.doc

d. Confirmed (via revision of power plant documents) that the emission factor corresponding to the Iberdrola plant in Monterrey is in fact 0.3614 tCO2e/MWh

e. Verified (via revision of historical records) that the value applied for the steam consumption by the decomposition process comes from the monthly records of readings taking from the meters from June 2006 to may 2007. These values are based on the steam consumption of Quimobasicos plant 1 (Registered CDM project, ref# 0151). Records of steam consumption from June 4th 2007 to June 3th 2008 were provided and showed a consumption of 190.489 tonnes of steam. It was noted that this value differed from the one presented in Ref.06 - Values applied_CER calculation.docx, which actually indicated 189.372 tonnes/year. However, as this parameter is going to be monitored the value of 190 tonnes/year is permissible to the effects of the PDD.

f. Verified (via revision of historical records) that the value of 81.8% applied for the purity of HFC23 (G23 for the purposes of the plant) is supported by the records of Quimobasicos plant 1 corresponding to the first year of crediting period (June 14th 2006 to June 13th 2007). See: Ref.07 - Values applied in CERs calculation. In addition to that, a revision was conducted for the great majority of the registries of the chromatograph for the period between 31 Dec. 2006 and 31 Jan. 2007 where different values from ranging from 85.90% - 73.05% were observed for the purity of HFC23. As the purity of the HFC23 supplied to the destruction process is a monitored parameter (P_HFC23y) the value of 81.8% is considered appropriate to the effects of the registration of the PDD.

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**04**	Type:	NIR	Issue :	Leakage	Ref.:	B.5.3

Lead Assessor Comment:	Date: 22/07/2008
NIR04 has been raised because the Leakage section contains several data that needs further evidence to be supported: a. Natural gas emission factor (0.001987 tCO2/m3). Provide reference. b. A total quantity of 300 tonnes of solid waste per year is estimated to be generated. Please provide records or explanations that support this estimate c. Assuming that each truck has a specific fuel conservative consumption of 3 kilometres per litre of diesel, and a capacity of 10 tonnes of solid waste. Provide evidence that support this assumption.	
Project Participant Response:	Date: *04/09/2008*

a. *Natural gas emission factor: as shown in the spreadsheet, the natural gas emission factor expressed in tCO2/m3 is the result of the product between the natural gas lower heating value (0.038116 GJ/m3) and its emission factor (56.1) expressed in kgCO2/GJ. The emission factor of 56.1 can be found in the Table 1.4 row #1 of the Sub-chapter 1.4.2.1 (CO_2 Emission Factors), of the sub-chapter 1.4.2 (Emission Factors), of the Chapter 1.4 (Data collection issues), of the Chapter 1 (Introduction), of the Volume 2 (Energy), of the IPCC 2006 Guidelines for Greenhouse Gas Inventories. The lower heating value (0.038116 GJ/m3) can be found in the Secretary of energy "Balance Nacional de Energía 2005", Table 20, Page 84, line 5.*

b. *Solid waste: As mentioned in section B.6.1 of the PDD version 2, no project emissions from transport will be considered for ex-ante calculation, since the current plan of the project developer is to stock the solid waste on-site (as it is currently done for the Plant #1).*

c. *Transport: As mentioned in section B.6.1 of the PDD version 2, no project emissions from transport will be considered for ex-ante calculation, since the current plan of the project developer is to stock the solid waste on-site (as it is currently done for the Plant #1).*

Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: New version of the PDD. Version 2 Information verified: Document Review	Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc

Reasoning for not acceptance or acceptance and close out:
NIR04 was closed after project proponents clarified that:

a. The emission factor for natural gas was derived from the natural gas lower heating value (0.038116 GJ/m3) taken from the Secretary of energy "Balance Nacional de Energía 2005", Table 20, Page 84, line 5 and the natural gas emission factor of 56.1 found in Volume 2 (Energy), of the IPCC 2006 Guidelines for Greenhouse Gas Inventories.

b. The generation of solid waste is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant.

c. The diesel consumption by trucks is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant.

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**05**	Type:	NIR	Issue :	Start date of the project activity	Ref.:	C.1.1

Lead Assessor Comment:	Date: 22/07/2008
The PDD mentions April 30th 2008 as the starting date of the project activity (when the investment was first approved at Cydsa's Board of Directors). NIR05 was raised in order to request project participants to provide evidence to support this day as the start of the project activity.	
Project Participant Response:	Date: *04/09/2008*
See file "NIR5 – start date".	
Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: Minutes from the board of directors Information verified: Document Review	Verified Document Reference: Ref.07 - Board of directors_start date.pdf

Reasoning for not acceptance or acceptance and close out: NIR05 was closed after project proponents submitted minutes from the board of directors held on April 30th 2008 where an Addendum to the Budget of Quimobasicos for the year 2008 was presented. The addendum basically states that an investment of US 2,160,000.00 was to be added to the original approved budget for year 2008 (US 2,514,000.00) in order to install a spare inconel reactor to assure the safety and continuity of operations. Further, the minutes expressed that investment needed for the installation of a second plasma technology destruction unit were to be approved so long the Mexican Government and the UNFCCC, CDM authorities gave their consent to its implementation. This is in line with the Guidelines for completing the Project Design Document (CDM-PDD) version 06.2 that states in Section B.5 that "If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/**or other corporate**) documentation that was available at, or prior to, the start of the project activity" and therefore NIR05 was closed out.

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**06**	Type:	CAR	Issue :	Leakage	Ref.:	B.5.3
Lead Assessor Comment:					Date: 06/08/2008		
A corrective action request (CAR06) has been raised because during the site visit it was observed that the Monitoring Reports registries corresponding to Quimobasicos (Plant 1) reflected a value of 189.37 tonnes/year for the amount of steam consumption utilized by the decomposition process (Q_Steam,y); nevertheless the PDD applies a different value of 64 tonnes/year.							
Project Participant Response:					Date: *04/09/2008*		
Has been corrected in the PDD to 190 tonnes/year. See "NIR3" for reference.							
Acceptance and Close out by Lead Assessor:					Date: 10/09/2008		
Information Provided: New version of the PDD. Version 2 Information verified: Document Review					Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc Ref.02 - CERs calculation Quimo v.2.xlsx		
Reasoning for not acceptance or acceptance and close out: CAR06 was closed after having satisfactorily verified (via revision of historical records) that the value applied for the steam consumption by the decomposition process comes from the monthly records of readings taking from the meters from June 2006 to may 2007. These values are based on the steam consumption of Quimobasicos plant 1 (Registered CMD project, ref# 0151). Records of steam consumption from June 4th 2007 to June 3th 2008 were provided and showed a consumption of 190.489 tonnes of steam. It was noted that this value differed from the one presented in Ref.06 - Values applied_CER calculation.doc, which actually indicated 189.372 tonnes/year. However, as this parameter is going to be monitored, the value of 190 tonnes/year is permissible to the effects of the PDD.							

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**07**	Type:	CAR	Issue :	Leakage	Ref.:	B.5.3
Lead Assessor Comment:					Date: 06/08/2008		
A corrective action request (CAR07) has been raised because during the site visit it was observed that the wastewater treatment records reflected a value of 579.74 m3 for the generation of sludge (on a dry basis); nevertheless the PDD applied a different value of 300 m3 for the estimation of leakage due to transportation of sludge outside the facilities.							
Project Participant Response:					Date: *04/09/2008*		

*It is now mentioned (in section B.6.1 of the PDD version 2), that no project emissions from transport (ET) will be considered for ex-ante calculation, since the current plan of the project developer is to stock the solid waste on-site (as it is currently done for the Plant #1). Hence, no value of solid waste generation is considered ex-ante. The following description of the calculation of ET_y has been added in the section B.7.2: "*The emissions from transportation are calculated based on the specific consumption of the vehicle, the emission factor of the vehicle fuel and the distance to the disposal site, go and return." *From a quantitative perspective, one can see it the following way: since there is no disposal site yet, hence the distance to the disposal is 0, and consequently the parameter ET is also 0 for ex-ante calculations.*	
Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: New version of the PDD. Version 2 Information verified	Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc
Reasoning for not acceptance or acceptance and close out: CAR07 was closed after project proponents clarified that the generation of solid waste is no longer relevant because no project emissions from transport will be considered for ex-ante calculation. It was observed during the site visit that, in the case of Quimobasicos 1, there is no transportation of sludge outside the plant. In any case, the PDD version 2 keeps provisions in this regard so now "The emissions from transportation are calculated based on the specific consumption of the vehicle, the emission factor of the vehicle fuel and the distance to the disposal site, go and return." This means that since there is no disposal site yet, hence the distance to the disposal is 0, and consequently the parameter ET is also 0 for ex-ante calculations. If this scenario changes in the future then leakage emissions should be accounted for.	

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**08**	Type:	CAR	Issue :	Description of project activity / Project boundary / project emissions	Ref.:	A.2.2, B.2
Lead Assessor Comment:					Date: 06/08/2008		
It was observed during the site visit that a wastewater treatment plant is needed for the operations of the CDM project activity. Since there is no reference to this WWTP neither within the project boundary section nor in the emissions due to the destruction process (E_DPy) and leakage (Ly). A corrective action request (CAR08) has been raised in order to address this issue.							
Project Participant Response:					Date: *04/09/2008*		
Wastewater treatment plant and emissions from transportation have been added in the project boundary diagram of the section B.3 (PDD version 2). Project emissions associated with the WWTP are the emissions from transportation and the emissions from electricity consumption, and both are already included under the parameters ET and Q_Power.							
Acceptance and Close out by Lead Assessor:					Date: 10/09/2008		
Information Provided: New version of the PDD. Version 2 Information verified: Document Review					Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc		
Reasoning for not acceptance or acceptance and close out: CAR08 was closed after the corrective action was implemented in the new version of the PDD (version 2). The wastewater treatment plant has been added in the project boundary diagram of the section B.3 (PDD version 2). Since, the methodology states: *"The steam and electricity are assumed to be purchased, so the emissions associated with these energy sources are included in the leakage calculation"* (See page 2/17 AM0001 v.5.2); the emissions associated to the WWTP have been included in the parameter Q_Power under the leakage section. For the purposes of ex-ante calculations of CERs, the PDD v.2 has kept the value of 1095 MWh. This is permissible as this is a monitored parameter, thus no more issues have been raised in this regard.							

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**09**	Type:	NIR	Issue :	Description of project activity	Ref.:	A.2.2

Lead Assessor Comment:	Date: 06/08/2008
It was observed during the site visit that a new boiler is being installed. As this new equipment may be directly linked to the project activity as its source of steam supply; a new information request (NIR09) has been raised in order to ask project participants to provide additional explanations concerning the impacts of this new boiler towards the CDM project.	
Project Participant Response:	Date: *04/09/2008*
The new boiler is definitely linked to the project as the source of steam supply, since it will deliver steam to the Plasma unit (and to the rest of Quimobasicos's facility). The new boiler will replace the old one, and will be used to supply steam to the whole Quimobasicos plant, including the Plasma plant. As mentioned in NIR3, it has been decided to keep the current consumption of the old boiler (100 cubic meters per ton of steam) for the ex-ante specific gas consumption, in order to enhance the conservativeness of the ex-ante calculation.	
Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: New version of the PDD. Version 2 Information verified: Document Review	Verified Document Reference: Ref.01 - PDD quimobasicos v2.doc
Reasoning for not acceptance or acceptance and close out: NIR09 was closed after project participants clarified that although the new boiler (observed during the site visit) will provide steam to the plasma unit and replace the old one; they decided to keep the current consumption of the old boiler (100 cubic meters per ton of steam) for the ex-ante specific gas consumption, in order to enhance the conservativeness of the ex-ante calculation.	

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**10**	Type:	NIR	Issue :	Operational Management and Structure	Ref.:	B.12
Lead Assessor Comment:					Date: 06/08/2008		
Although a high level of competence was observed during the side visit amongst the personnel that works for Quimobasicos in terms of their technical expertise and skills on data collection tasks, there is still no formal description of their roles, levels of authority and responsibilities for the purposes of the operations of the CDM project. For this reason NIR10 has been raised in order to request this information.							
Project Participant Response:					Date: *04/09/2008*		
The file "NIR10 – organigram" shows the roles & responsibilities of the personnel.							
Acceptance and Close out by Lead Assessor:					Date: 10/09/2008		
Information Provided: Organisation chart showing the structure of the personnel related to the operations of the plasma unit and their responsibilities. Information verified: Document Review					Verified Document Reference: Ref.08 - organigram & responsabilities.ppt		
Reasoning for not acceptance or acceptance and close out: NIR10 was closed after project proponents provided the organisation chart showing the structure of the personnel related to the operations of the plasma unit and their responsibilities. The roles were verified and they cover all the responsibilities needed for the good operations of the CDM project activity (i.e. top manager, site manager, measurement instruments operators, lab analysis, etc.)							

Date:	22/07/2008			Raised by:	Aurea Nardelli		
No.:	**11**	Type:	NIR	Issue :	Application of the baseline methodology	Ref.:	B.3.3
Lead Assessor Comment:					Date: 06/08/2008		

Satisfactory evidence was provided during the site visit in order to corroborate the historical production of CFCs and HCFC for the period of 2000-2005. The records actually matched the amount of HCFC22 presented in Table 5 of the PDD (i.e. 225 tonnes), which is in line with ACM0001 v.5.2 that reads: "The CFC production at swing plants should be included as an equivalent HCFC-22 production in Q_HCFCeHist only for those production lines and only for those years in which HCFC-22 was actually produced in that production line". Further, project participants provided copy of the production vs. sales records in order to support the abovementioned figure of 225 tonnes of HCFC for the year 2000. Yet, this NIR11 has been raised in order to ask project participants to further explain how this production of 225 tonnes could be linked or cross check against orders placed by clients (actual demand) and sales records that can evidence actual delivery.	
Project Participant Response:	Date: *04/09/2008*
First of all, please refer to the file "NIR11 – balance". As shown, during the year 2000, Quimobasicos produced a total (plant 1 + plant 2) of 4,311.4 tonnes of HCFC-22, from which 4,237.9 have been sold (as shown in the records), which means a net quantity of 73.5 tonnes have been added to the inventory during year 2000. *From the total of 4,311.4 tonnes produced, plant 1 has produced 4086.5 tonnes and plant 2 has produced 224.9 tonnes; which means plant 1 couldn't cover all the demand (4,237.9 tonnes); plant 2 has been necessary in order to respond it. As shown in the balance, 98.3% of the HCFC-22 produced has been sold, with a small amount of HCFC-22 in the inventory of year 2000 (1.7%), which shows that there has been a constant market demand for HCFC-22.* *Besides, the maximum inventory capacity of the plant is defined as 60 days of production, which means that for a 1 month period, the plant can store a maximum of 2 months in the inventory. For the year 2000 which has 4237.9 tonnes in HCFC-22 sales, it means 11.77 tonnes per day (4237.9 tonnes divided by 360 days, taking off the holidays) multiply by 60 days = 706.3 tonnes of inventory capacity, each month. As shown in row #12 of the balance spreadsheet (Ref.09 - production vs invoices.xls), the month inventory has never been at the maximum capacity in any of the month, not even half of it the majority of the time. Again, this balance dynamic demonstrates the constancy of the market demand for HCFC-22.*	
Acceptance and Close out by Lead Assessor:	Date: 10/09/2008
Information Provided: *(Describe the type of information provided for each Reference document, include extra lines for more references)* Information verified: Document Review	Verified Document Reference: Ref.09 - production vs invoices.xls
Reasoning for not acceptance or acceptance and close out: After the required additional information was provided, NIR11 was closed. It is now clear, as explained by the project developers and supported by production and sales records, that during the year 2000, Quimobasicos produced a total (plant 1 + plant 2) of 4,311.4 tonnes of HCFC-22, from which 4,237.9 have been sold (as shown in the records), which means a net quantity of 73.5 tonnes have been added to the inventory during year 2000. From the total of 4,311.4 tonnes produced, plant 1 has produced 4086.5 tonnes and plant 2 has produced 224.9 tonnes; which means plant 1 couldn't cover all the demand (4,237.9 tonnes); plant 2 has been necessary in order to respond it. As shown in the balance, 98.3% of the HCFC-22 produced has been sold, with a small amount of HCFC-22 in the inventory of year 2000 (1.7%), which shows that there has been a constant market demand for HCFC-22. Besides, the maximum inventory capacity of the plant is defined as 60 days of production, which means that for a 1 month period, the plant can store a maximum of 2 months in the inventory. For the year 2000 which has 4237.9 tonnes in HCFC-22 sales, it means 11.77 tonnes per day (4237.9 tonnes divided by 360 days, taking off the holidays) multiply by 60 days = 706.3 tonnes of inventory capacity, each month. As shown in row #12 of the balance spreadsheet (Ref.09 - production vs invoices.xls), the month inventory has never been at the maximum capacity in any of the month, not even half of it the majority of the time. Again, this balance dynamic demonstrates the constancy of the market demand for HCFC-22.	

Date:	22/07/2008	Raised by:	Aurea Nardelli

No.:	**12**	Type:	CAR	Issue :	Changes in the PDD	Ref.:	PDD v.2
Lead Assessor Comment:					Date: 26/09/2008		
Sections B.7.1, B.7.2 (i.e. maintenance and Calibration of monitoring equipment) and Annex 4 of PDD did not state the frequency of calibration for the flow meters used to monitor the quantity of HFC 23 destroyed (q_HFC23y) as established prescribed by AM001. Based on this, a corrective action request (CAR12was raised in order to ask project participants to specify the calibration frequency of the HFC 23 flow meter, in section B.7.1, B.7.2 and Annex 4 of the PDD. In addition, these sections should also specify the frequency of calibration for the rest of instruments used for data monitoring purposes.							
Project Participant Response:					2008-10-06		
Note: The parameter q_HFC23y is not the quantity destroyed by the decomposition process, but rather the quantity supplied to the decomposition process, before purity adjustments. Please refer to PDD version 3. In section B.7.1, under the q_HFC23y parameter, it has been added the following QA/QC procedure: "*The two flow meters will be calibrated every six month*", according to section D.6 (QA/QC procedures) of the AM-0001 version 5.2. The calibration frequency (every 6 months) of the HFC23 flow meters has also been added in Annex 4, under QA/QC procedures. For all the other monitored parameters, the calibration frequency has been added in their respective QA/QC section of Annex B.7.1. Besides, a footnote in section B.7.2 has been added in order to refer to section B.7.1 for the calibration frequency of the instruments. The footnote comes as followed: "*Please refer to section B.7.1 for the calibration frequency of each instrument*". The calibration frequency of each parameter is also specified in the QA/QC section of Annex 4.							
Acceptance and Close out by Lead Assessor:					Date: 24/10/2008		
Information Provided: PDD version 3 Information verified: Document Review					Verified Document Reference: *Ref.01 – PDD quimobasicos v3*		
Reasoning for not acceptance or acceptance and close out: After the project participant provided a new version of the PDD (Ref.01 – PDD quimobasicos v3) CAR 12 was closed. It is clarified that the meters are to undergo calibration every six months. This is in compliance with AM0001 version 5.2. Also a footnote was added to section B.7.2 to refer to section B.7.1 for frequency of calibration of the equipment.							

Date:	26/09/2008			Raised by:	Aurea Nardelli		
No.:	**13**	Type:	CAR	Issue :	Changes in the PDD	Ref.:	PDD v.3
Lead Assessor Comment:					Date: 26/09/2008		

A corrective action request (CAR13) has been raised in order to ask project participants to:

a. Make the necessary modifications in figure 2 on page 5/42. The nomenclature does not allow for a clear reading because the font size does not correspond with the box size. Due to this, part of the text is left out of the box.

b. Revise the CDM PDD template and check table 3 under section A.4.4. (Total estimated reductions (tones of CO_2 e)) and make the necessary changes.

c. For the sake of clarity, explain in the PDD the basis to support the additionality arguments (i.e. not having an environmental regulation in host country for HFC23 destruction and regulation the destroyed quantity of HFC23 in baseline). Please refer to NIR 02.

d. Confirm under section B.6.1 (i.e. emissions due to the destruction process) that no fossil fuel is used in project activity for HFC23 destruction.

e. Include in the PDD the reference that justifies the use of EF: 0.3614 tCO_2/MWh for the power plant that supplies electricity to Quimobasicos. Please refer to NIR 03.

f. In Section E.1, please state in a more specific manner the date of the local stakeholder consultation (i.e. day, month and year).

g. The data unit for parameters q_HFC23y; ND_HFC23y and steam consumption should be 'kg' instead of 'tonnes' as indicated in the tables of the applied methodology

h. For power consumption the abbreviation used is not in line with the applied methodology and data should be reported in kWh instead of 'MWh'.

Project Participant Response:	Date: *02/10/2008*

a. Done.

b. Done.

c. It has been verified during the validation site visit that since the first ISO-14001 certification, Quimobasicos had implemented a surveillance system of the current laws and regulations that could impact directly or indirectly the project's activities. This surveillance is carried out daily, through the Ministry of Interior Webpage (*Diario official de la Federacion, Secretaria de Gobernacion*) and the result of the verification is recorded daily according to the ISO-14001 procedures. Please refer to "NIR13c – HFC23 regulation", which is a sample of the daily surveillance record.

The following paragraph has been added to section B.5 of the PDD:

Indeed, there is no current regulation emitted by the Mexican environmental authority (SEMARNAT) regarding the emissions of HFC23 to the atmosphere[1]. Besides, Quimobásicos is certified ISO 14001 and each ISO 14001 audit ensures that the procedures are correctly implemented and it includes a daily systematic surveillance of all the current legal requirements that could be impact directly or indirectly the project's activities. The daily verification consists of an exhaustive revision of the Méxican Ministry of Interior Webpage, called the Federation Official Diary[2], which is the official reference for current laws and regulations in México.The results of the daily verification are recorded and archived according to the procedures established by ISO-14001. Since there is no HFC23 regulation in México, the HFC23 is not contemplated by the current ISO-14001 procedures. If needed and based on the results of the daily surveillance of the applicable laws, the procedures will be updated in order to be constantly in line with current national regulation of HFC23.

d. The following footnote has been added in section B.6.1, under Leakage: *No fossil fuel is consumed by the plasma destruction unit.*

e. After verification with Iberdrola, they accepted to deliver confidential emission data of year 2007. The monthly data come from an internal report (*Informe Annual de Medio Ambiente 2007*). Please refer to file "CAR13e – CEF Iberdrola", which is an extract from the report. The excel file "CAR13e - CEF Iberdrola" calculate the average of the months of year 2007. The result is 0.3599 tCO2e0MWh. The value has been modified in PDD version 3 (section B.6.2). The whole calculation (section B.6.3) has also been updated accordingly.

f. Done.

g. Done.

h. Done.

Acceptance and Close out by Lead Assessor:	Date: 24/10/2008
Information Provided: PDD version 3 Information verified: Document Review	Verified Document Reference: *Ref.01 – PDD quimobasicos v3*

[1] A complete list of the current applicable regulations (*normas*) is available on the Web page of the SEMARNAT: http://www.semarnat.gob.mx/leyesynormas/Pages/normasoficialesmexicanasvigentes.aspx

[2] Diario Oficial de la Federación: http://www.dof.gob.mx/

Reasoning for not acceptance or acceptance and close out:
It was verified in the Quimobasicos PDD (Ref.01 – PDD quimobasicos v3) that:

a) Figure 2 was modified to show a clear image and title of the production process of HCFC22 at the industrial facility.

b) Table 3 section A.4.4 was modified to comply with the CDM PDD template.

c) It is clearly explained the procedure implemented by Quimobasicos for surveillance of the current laws and regulations that could impact directly or indirectly the project's activities. This is done through a daily check to the Ministry of Interior Webpage (*Diario official de la Federacion, Secretaria de Gobernacion*) and the result of the verification is recorded daily according to the ISO-14001 procedures. This supports the additionality arguments by having a procedure in place to verify that the project is not only complying with national regulations, but it goes above and beyond what is required.

d) Section B.6.1 has a footnote specifying that the plasma destruction of HCFC23 unit does not consume fossil fuel.

e) Section B.6.2 was modified after the final release of the internal report (Ref.28 – CO2 Emission MWh Iberdrola) of the power plant Iberdrola, where it shows the amount 359.8675KgCO_2/MWh. This is then transformed to 0.3599 tonsCO_2/MWh and used as the Electricity Grid emission factor (Ref.29 – Grid Emission Factor Calculation). The source of the value is clearly explained and is used in accordance to the methodology.

f) Section E.1 was modified to identify the specific date of the stakeholder consultation.

g) Data unit for parameters q_HFC23y; ND_HFC23y and steam consumption was changed from 'kg' instead of 'tonnes' to comply with the methodology applied.

h) The unit for power consumption was changed from MWh to kWh to comply with the applied methodology.

CAR13 was closed out after project proponent made the necessary changes and specified the source of the values asked.

Date:	29/09/2008			Raised by:	Aurea Nardelli		
No.:	**14**	Type:	CAR	Issue :	w factor	Ref.:	CERs spreadsheet

Lead Assessor Comment:	Date: 29/09/2008
AM001 states in page 5/17 that: "The historical waste generation rate w shall be estimated for the three (3) most recent years of operation up to 2004". However, the calculation of the w factor shown in Annex 3 of the PDD as well as in the CERs spreadsheet is based on "historical data year 2000", which is out of the range prescribed by the methodology. The methodology further states that: "The value of w is set at the lowest of these three historical annual values", yet the production records indicate that no production of HCFC22 took place between year 2001 and 2004. Therefore and as per the methodology instructs; if insufficient data are available to calculate HFC23 release for this plant a default value of 1.5% for the w factor should be used. Please elaborate accordingly.	
Project Participant Response:	Date: 02/10/2008
Since the methodology states that "w shall be estimated for the three (3) most recent years of operation **up to** 2004", the calculation of w factor is not limited to the vintage 2000-2004, but only restricted to production data up to 2004, or prior to 2005. Hence, year 2000 has been chosen since it is the most recent year of operation (of HCFC-22) before 2005.	
Acceptance and Close out by Lead Assessor:	Date: 24/10/2008

Information Provided: *(Describe the type of information provided for each Reference document, include extra lines for more references)* Information Verified: *(Explain how the information was verified)*	Verified Document Reference: *(Document reference name and number/date must comply with reference list in AR6)*
Reasoning for not acceptance or acceptance and close out: CAR14 remains OPEN: The methodology suggests using either recent 3 years data or conservative value. The clarification provided by project developers is not acceptable as it is using only a recent year data and not recent 3 years data. Pls. use recent three years data for calculation of 'w' factor or use conservative value of 1.5%	
Project Participant Response:	Date: *20/11/2008*
W factor has been set to 1.5%.	
Acceptance and Close out by Lead Assessor:	Date: 18/12/2008
Information Provided: PP provided the PDD version 4 and the CERs spreadsheet with the new W factor Information Verified: Document Review	Verified Document Reference: • Ref01 - PDD quimobasicos v4.doc • Ref02 - CERs calculation Quimo v.4.xls
Reasoning for not acceptance or acceptance and close out: It was verified that the w factor used in the PDD and the CERs Spreadsheet is in accordance with the methodology. Hence CAR14 has been closed out.	

Date:	29/09/2008			Raised by:	Aurea Nardelli		
No.:	**15**	Type:	NIR	Issue :	Equivalent level of HCFC-22 production	Ref.:	CERs spreadsheet
Lead Assessor Comment:					Date: 29/09/2008		
Taking into account the statement that appears in the CERs spreadsheet v.2: *36 tonnes of CFC is equivalent to 25 tonnes of HCFC 22" (See, Historical Data); NIR15 has been raised in order to ask project participants how was this Ratio of CHCFC-22 / CCFC derived?							
Project Participant Response:					Date: 06/10/2008		
See "NIR15 – ratio 0.69".							
Acceptance and Close out by Lead Assessor:					Date: 24/10/2008		
Information Provided: Ref. 31 – 069 ratio Information verified: *(Explain how the information was verified)*					Verified Document Reference: *(Document reference name and number/date must comply with reference list in AR6)*		
Reasoning for not acceptance or acceptance and close out: NIR 15 was closed out after the revision of the file sent by the project proponent. The first document states in its conclusion a ratio of 0.6944 of CFC/HCFC. The conclusion is brought from a historical data found in a sector audit report for the year 2003. The project proponent achieved to specify the source of the values applied in the CERs spreadsheet v.2.							

Date:	29/09/2008			Raised by:	Vikrant Badve, TR		
No.:	**16**	Type:	NIR	Issue :	Serious Consideration of the CDM	Ref.:	Additionality
Lead Assessor Comment:					Date: 29/09/2008		

The Guidelines for completing the Project Design Document (CDM-PDD) state in Section B.5: "If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project Activity". Considering that the Starting date of the project has been marked as April 30th and that validation start date was on June 16th; NIR16 has been raised in order to ask project participants to provide further evidence that can support the serious consideration of the CDM for the purposes of the implementation of Quimobasicos (plant 2).	
Project Participant Response:	Date: 06/10/2008
See file "NIR16 – CDM consideration". It is the contract between EcoSecurities Group PLC and Quimobasicos S.A. de C.V. and explicitly refers to the Carbon revenues of the project.	
Acceptance and Close out by Lead Assessor:	Date: 24/10/2008
Information Provided: Contract EcoSecurities Group PLC and Quimobasicos S.A. de C.V. Information Verified: Document Review	Verified Document Reference: *(Document reference name and number/date must comply with reference list in AR6)*
Reasoning for not acceptance or acceptance and close out: In their response project developers provided copy of the contract between EcoSecurities Group PLC and Quimobasicos S.A. de C.V. which is dated January 31st, 2008. This demonstrate that the CDM was considered before the date that has been marked as the start of the project (April 30th, 2008), proving a serious consideration of the CDM. Therefore, NIR16 was closed out.	

Date:	12/11/2008			Raised by:	Aurea Nardelli		
No.:	17	Type:	CAR	Issue :	Changes to the PDD	Ref.:	PDD Version 4
Lead Assessor Comment:					Date: 12/11/2008		

A corrective action request (CAR17) has been raised in order to ask project participants to:

a. In section A.3. (Project Participants) remove the title (Table 1: Project Participants) as it is not as per template.

b. Make the necessary modification to the numeration sequence for the tables. As they may have change from the previous modification.

c. For the sake of clarity, specify in Section B.6.1 (page 15, para. 3) if the value of 0.3599 tCO_2/MWh is fixed or monitored during the verification.

d. In Section B.7.1 (Data and Parameters monitored), please provide the monitoring frequency for all the parameters as well as their particular number.

e. State which was the event that indicates the starting date of the project activity (2008-04-30) in Section C1.1 (Starting date of Project Activity).

f. Include the grid emission factor on table (Baseline Information) on Annex 3.

g. In Annex 4 (Monitoring Plan) page39, please include the missing parameter as in Section 7.1 shows 8 parameters and in this table only 7 parameters are available.

h. Revise and make the necessary changes for the number on each parameter in Annex 4 (Monitoring Plan) page 39 and 40, to correspond to the numbers in Section 7.1.

i. For the sake of clarity, use the same language on Annex 4 page 39 parameters $qHFC23_y$ "The two flow meters will be calibrated twice a year" (every six month) and P_HFC23_y "The gas chromatograph will be calibrated each month" (monthly).

j. Indicate in Annex 4 (page 39) the frequency of calibration for the parameter ND_HFC23_y.

Project Participant Response:	Date: 19/11/2008

Please refer to PDD version 4 for the following changes:

a. *Done.*
b. *Done.*
c. *Done.*
d. *Frequency has been added for each parameter. Parameter number has been left out since it's not part of the UNFCCC template.*
e. *The following sentence has been added to section C.1.1:*
Quimobásicos' board of directors was held on April 30th 2008, during which an Addendum to the Budget of Quimobasicos for the year 2008 was presented and approved. The Addendum included the investment and operation costs of the Plant #2 HFC23 destruction unit.
f. *Done.*
g. *The three annex4 tables (project emissions, baseline emissions and leakage) has been re-built in order to differentiate the monitoring parameters (M) and the figures (F). There is 8 monitoring parameters (M1 to M8), and they correspond to section B.7.1.*
h. *Done.*
i. *Done.*
j. *Done.*

Acceptance and Close out by Lead Assessor:	Date: 18/12/2008
Information Provided: Information Verified: Document Review	Verified Document Reference: • Ref01 - PDD quimobasicos v4.doc

Reasoning for not acceptance or acceptance and close out:

a. Title (Table 1: Project Participants) has been removed.

b. The necessary modification to the numeration sequence for the tables was made.

c. In Section B.6.1 (page 15, para. 3) it was clarified that the value of 1.3 tCO_2/MWh is fixed during the verification.

d. The monitoring frequency in Section B.7.1 (Data and Parameters monitored), has been set for all the parameters as well as their particular number.

e. The following sentence has been added to section C.1.1:
Quimobásicos' board of directors was held on April 30th 2008, during which an Addendum to the Budget of Quimobasicos for the year 2008 was presented and approved. The Addendum included the investment and operation costs of the Plant #2 HFC23 destruction unit.

f. The grid emission factor on table (Baseline Information) on Annex 3 was included.

g. The three annex4 tables (project emissions, baseline emissions and leakage) has been re-built in order to differentiate the monitoring parameters (M) and the figures (F). There is 8 monitoring parameters (M1 to M8), and they correspond to section B.7.1.

h. The necessary changes were made.

i. Same language is used.

j. The frequency of calibration for the parameter ND_HFC23_y is set to be done monthly.

After the necessary changes were done and revised CAR17 has been closed out.

Date:	12/11/2008			Raised by:	Aurea Nardelli		
No.:	18	Type:	NIR	Issue :	Grid Emission Factor	Ref.:	
Lead Assessor Comment:					Date: 12/11/2008		

<table>
<tr><td colspan="3">For the sake of transparency, a New Information Request (NIR18) was raised to ask project participant to provide a copy of the report of the Iberdrola Plant (Informe annual de medio ambiente). If data is available on web site then provide the internet link.</td></tr>
<tr><td colspan="2">Project Participant Response:</td><td>Date: 15/12/2008</td></tr>
<tr><td colspan="3">According to the Tool to calculate baseline, project and/or leakage emissions from electricity consumption, Project Participant decided to choose the default emission factor of 1.3 tCO2e/MWh (EB39, Annex 7, page 4). Even though the real emission factor is much lower than 1.3 (as previously demonstrated), PP has decided to choose 1.3 since Iberdrola refuses to disclose the electricity generation and fuel consumption confidential data. This decision enhances the conservativeness of the ERs calculation. See updated Spreadsheet and PDD.</td></tr>
<tr><td colspan="2">Acceptance and Close out by Lead Assessor:</td><td>Date: 18/12/2008</td></tr>
<tr><td colspan="2">Information Provided:

Information Verified:
Document Review</td><td>Verified Document Reference:
• Ref01 - PDD quimobasicos v4.doc
• Ref02 - CERs calculation Quimo v.4.xls</td></tr>
<tr><td colspan="3">Reasoning for not acceptance or acceptance and close out:
Since Iberdrola did not supply the copy of the report (Informe annual de medio ambiente) indicating that such report has confidential data PP used the default value. PP provided a new version of the PDD and a new version of the CER’s spreadsheet were the value used for the emission factor was of 1.3 tCO2e/MWh. Hence NIR18 has been closed.</td></tr>
</table>

A.4 Annex 4: Team Members Statements of Competency

Statement of Competence

Name: Aurea Nardelli SGS Affiliate: Brazil

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1.	Energy Industries (renewable / non-renewable)	☒
2.	Energy Distribution	☐
3.	Energy Demand	☐
4.	Manufacturing	☒
5.	Chemical Industry	☐
6.	Construction	☐
7.	Transport	☐
8.	Mining/Mineral Production	☐
9.	Metal Production	☐
10.	Fugitive Emissions from Fuels (solid, oil and gas)	☐
11.	Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
12.	Solvent Use	☐
13.	Waste Handling and Disposal	☒
14.	Afforestation and Reforestation	☒
15.	Agriculture	☐

Approved Member of Staff by: Marco van der Linden Date: 16-03-2007

Statement of Competence

Name:Shetty Shivananda SGS Affiliate:SGS India

Status

- Product Co-ordinator ☒
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☐

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☒
2. Energy Distribution ☒
3. Energy Demand ☒
4. Manufacturing ☒
5. Chemical Industry ☒
6. Construction ☐
7. Transport ☒
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☒
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Siddharth Yadav Date: 31.10.2008