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Determination Report

Yara Pardies Nitric Acid Plant

DETERMINATION OF THE JI TRACK 1 PROJECT: YARA PARDIES N_2O ABATEMENT PROJECT

REPORT NO. 600500365

5 July 2010

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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Subject: Determination of the JI track 1 Project *Yara Pardies N_2O Abatement Project*	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich Germany	**TÜV SÜD Contract Partner:** TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich Germany
Project Participant of host country: YARA France SAS 100 Rue Henri Barbusse F-92751 Nanterre	**Project Site(s):** Pardies near Pau, South West of France, Department: Pyrénées-Atlantiques Ammonia burners: 43°22'21.32"N & 0°35'10.20"N
Project Title: *Yara Pardies N_2O Abatement Project*	
Applied Methodology / Version: Project specific methodology	**Scope(s):** 5 **Technical Area(s):** 5.1
First PDD Version (GSP): Date of issuance: 19.08.2009 Version No.: 01 Starting Date of GSP 24.08.2009	**Final PDD version:** Date of issuance: 24.05.2010 Version No.: 03
Estimated Average Annual Emission Reduction: **63.943** tCO_2equ	
Assessment Team Leader: Nikolaus Kröger **Assessment Team Members:** Robert Mitterwallner	**Veto Person:** Javier Castro **Responsible Certification Body Members:** Thomas Kleiser

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Summary of the Validation Opinion:

☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence for the determination of the project's fulfilment of all stated criteria. In our opinion, the project meets all national guidelines and procedures of the host country France for JI track 1 (http://ji.unfccc.int/JI_Parties/PartiesList.html#France) as well as the specific requirements of the LoE of the DFP of France. Therefore, TÜV SÜD recommends the project for registration by the DFP of France if the letters of approval of all Parties involved will be available.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence for the determination of the project's fulfilment of all stated criteria. Therefore, TÜV SÜD will not recommend the project for registration by the DFP of France and will inform the project participants and the DFP of France of this decision.

Abbreviations

AIE	Accredited Independent Entity
AMS	Automated Measurement System
BREF	Best Available Technique Reference
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DFP	Designated Focal Point
DVM	JI Determination and Verification Manual
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	GreenHouse Gas(es)
GSP	Global Stakeholder Process
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
JI	Joint Implementation
JISC	JI Supervisory Commitee
KP	Kyoto Protocol
LoA	Letter of Approval
LoE	Letter of Endorsement
MP	Monitoring Plan
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

1.1 Objective

Determination is an independent assessment by a Third Party (Accredited Independent Entity = AIE) of a proposed project activity against the defined set of criteria for registration under the Joint Implementation (JI). Determination is also part of the JI Track 1 project cycle and will finally result in a conclusion by the executing AIE whether a project activity is valid, and should therefore be submitted for registration to the Designated Focal Point (DFP) for JI project implementation in France - *Ministère de l'Écologie, de l'Énergie, du Développement Durable et de la Mer, en charge des Technologies vertes et des Négociations sur le climat*. The ultimate decision on the registration of a proposed project activity rests with the DFP in France and the Parties involved.

The project activity mentioned in this Determination Report has been submitted under the project title: "*Yara Pardies N_2O Abatement Project*".

The company - YARA Pardies Nitric acid plant - has contracted TÜV SÜD Industrie Service GmbH to conduct a determination of the above mentioned JI project in Pardies, France. The project was designed as a Track 1 project thus in the context of the Global Stakeholder Process (GSP) the project was published on the www.netinform.de website for a period of 30 days up from 24. August 2009 and is still available for public consultation at the following web link:

http://www.netinform.net/KE/Wegweiser/Guide22.aspx?ID=6282&Ebene1_ID=50&Ebene2_ID=2048&mode=5

Under JI Track 1, requirements for the final approval are set by the DFP involved, mainly the DFP of the host country and in this case it is the French DFP. The general requirements are published in http://ji.unfccc.int/JI_Parties/PartiesList.html#France, and the project specific French requirements for this project are described in the Projet Domestique Methodology: "Catalytic reduction of N_2O at nitric acid plants approved by the DFP in July 2009 (IRL-No. 3). The MEEDDM approved the methodology (IRL-No. 5) and, thus, confirms the validity of applying the methodology.

The determination serves as a conformity test of the project design and is a requirement for all JI projects. In particular the project's reference case, the monitoring plan (MP), and the project's compliance with host country criteria and general relevant UNFCCC 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. Determination is considered necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions known as Emission Reduction Units (ERU - in the first commitment period under the Kyoto Protocol).

UNFCCC JI criteria refer to the Kyoto Protocol Article 6 criteria and the Guidelines for the implementation of Article 6 of the Kyoto Protocol as agreed in the Marrakech Accords.

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of JI project activities, the scope is set by:

- The Kyoto Protocol, in particular § 6
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Decisions of the JISC published under http://ji.unfccc.int (for general guidance)

- Specific guidance by the JISC published under http://ji.unfccc.int (for general guidance)
- The applied approved methodology
- The technical environment of the project (technical scope)
- Internal and national standards on monitoring and QA/QC
- Technical guideline and information on best practice
- Additional national requirements as set by the French DFP

The determination process is not meant to provide any form of consulting for the project participant (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the project design.

The first version of the PDD received by TÜV SÜD was made publicly available on the internet at TÜV SÜD's webpage as mentioned above. The applied methodology *Réduction Catalytique du N2O dans des usines d'acide nitrique* (IRL-No. 3) can be found at the webpage of the French DFP at http://www.ecologie.gouv.fr/Methodologies-de-projets.html.

The only purpose of a determination is its use during the registration process as part of the JI Track 1 project cycle. Hence, TÜV SÜD cannot be held liable by any party for decisions made or not made based on the Determination opinion, which will go beyond this purpose.

The determination scope is defined as an independent and objective review of the PDD and other relevant supporting documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. The rules for Track 1 have to be finalised by the French DFP.

The determination of this project activity has been carried out according to the JI DVM. In this particular case a project specific determination protocol corresponding to the specific demands of the project specific methodology "*Réduction Catalytique du N2O dans des usines d'acide nitrique***"** had been developed and used.

According to the Corrective Action Requests (CARs) and Clarification Requests (CRs) addressed during the audit process the client decided to revise and update the PDD to version 3 from 24 May 2010. This final version of the PDD serves as the basis for the final conclusions presented herewith.

In order to evaluate the PDD and corresponding documentation, it was obvious that the competence and capability of the validation team had to cover at least the following aspects:

- Knowledge of Kyoto Protocol and the Marrakech Accords
- Environmental and Social Impact Assessment
- Skills in environmental auditing (ISO 14001)
- Quality Assurance
- Technologies, processes and operation of nitric acid plants
- Reference case concepts
- Monitoring concepts
- Political, economical and technical random conditions in host country

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2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the DVM, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a determination protocol was customised for the project. TÜV SÜD developed a checklist and protocol based on the templates presented by the DVM. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The Determination Protocol serves the following purposes:

- It organises, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent Determination process where the validator will document how a particular requirement has been validated and the result of the Determination.

The Determination protocol for this project consists of three tables. The different columns in these tables are described in the figure below.

The completed Determination protocol is enclosed in Annex 1 to this report.

Determination Protocol Table 1: Conformity of Project Activity and PDD				
Checklist Topic / Question	***Reference***	***Comments***	***PDD in GSP***	***Final PDD***
The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.	*Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.*	*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. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any* ***Request*** *has to be substantiated within this column*	*Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑),* ***or a Corrective Action Request (CAR)*** *due to non-compliance with the checklist question (See below).* ***Clarification Request (CR)*** *is used when the Determination team has identified a need for further clarification.*	*Conclusions are presented in the same manner based on the assessment of the final PDD version.*

Table 2 presents the summary of project proponent's response to the CARs and CRs as well as the Determination team's conclusions. This table may also include any Open Issues addressed during the Determination process.

Determination Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	***Ref. to table 1***	***Summary of project owner response***	***Determination team conclusion***
If the conclusions from Table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the client or other project participants during the communications with the Determination team should be summarised in this section.*	*This section should summarise the Determination team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".*

In case of any unsatisfactory response from the project proponent to any of the CARs, CRs or Open Issues, the unresolved issues will be presented in table 3.

Determination Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	***Id. of CAR/CR 1***	***Explanation of the Conclusion for Denial***
If the final conclusions from Table 2 results in a denial the referenced request should be listed in this section.	*Identifier of the Request.*	*This section should present a detailed explanation, why the project is finally considered not to be in compliance with a criterion.*

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope/s and the technical area/s linked to the methodology and project have to be covered by the assessment team. The Determination team consisted of the following members (Assessment Team Leader is written in bold letters):

Name	Qualification	Coverage of scope 5	Coverage of technical area 5.1 and 5.2	Host country experience
Nikolaus Kröger	**ATL**	☑	☑	
Robert Mitterwallner	GHG-A	☑	☑	☑

Nikolaus Kröger is environmental engineer and expert for emissions monitoring and quality assurance at the department "TÜV SÜD Carbon Management Service". He is located in the TÜV SÜD Hamburg office and is also engaged as personally accredited verifier in the EU-ETS serving the Northern German market. Being auditor for CDM projects he has already been involved in several CDM activities with a special focus on industrial non-CO2 projects. Constitutive on 13 years experience at the department "Environmental Service" he verified many metallurgical plants, refineries, chemical plants, waste treatment and power plants and process engineering in many types of facilities. One of his former focal points had been implementation and calibration of complex automatic Environment-Data-Systems.

Robert Mitterwallner is a GHG-Auditor with a background as auditor for environmental management systems (according to ISO 14001), as expert in environmental permit procedures for industrial plants and as expert for environmental impact studies assessment. He is located at TUV SÜD Industrie Service in Munich since 1990. He has received training in the JI determination as well as CDM validation process and applied successfully as GHG Auditor for the scope chemical industries, among others.

2.2 Review of Documents

The first version of the PDD was submitted to the AIE in July 2009. This PDD version and additional background documents related to the project design and reference case have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources (if available) has been done as an initial step of the validation process. In May 2010 the design of the project has been changed by an updated N2O abatement efficiency of the secondary catalyst. This is deemed not to be a substantial change of the design of the project activity (see chapter 3.4.5). Furthermore, in the same month a new draft Arrêté Préfectorale has been submitted (see chapter 3.4.2). A complete list of all documents and evidence material reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

On 7. September 2009, TÜV SÜD performed an initial telephone conference with the project developer N-serve Germany. Physical site inspections and interviews with the project developer and the PP were held 10. and 11. September 2009 to confirm relevant information, and to resolve issues identified in the first document review.

The table below provides a list of all persons interviewed in this process.

Name	Organisation
Mr. Philippe Michiels (Plant manager)	Yara Pardies Nitric Acid Plant, usine Pardies
Mr. Guillon Bernard (HESQL manager)	Yara Pardies Nitric Acid Plant, usine Pardies
Philip Bault (maintenance manager)	Yara Pardies Nitric Acid Plant, usine Pardies
Mr. Patrick Marias (production manager)	Yara Pardies Nitric Acid Plant, usine Pardies
Ms. Rebecca Cardani Strange (project manager)	N-serve, Germany

2.4 Further cross-check

During the determination process the team has made reference to available information related to similar projects or technologies as the JI project activity. Project documentation has also been reviewed against the project specific methodology to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which needed to be clarified for TÜV SÜD`s conclusion on the project design. The CARs and CRs raised by TÜV SÜD were resolved during communication between the project developer / PP and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in the validation protocol in annex 1.

2.6 Internal Quality Control

Internal quality control is the final step of the determination process and involves the internal quality control by the CB “climate and energy” of the final documentation, which includes the determination report and annexes. The completion of the quality control indicates that each report submitted has been approved either by the head of the CB or the deputy (a veto person can be used if necessary). In projects where either the Head of the CB or his/her deputy is part of the assessment team, the approval is given by the one not serving on the project.

It is the ultimate decision of TÜV SÜD’s Certification Body whether a project will be submitted for requesting registration at the French DFP or not.

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3 SUMMARY

The assessment work and the main results are described below in accordance with the DVM reporting requirements. The reference documents indicated in this section and annex 1 are stated in annex 2.

3.1 Approval

The project participant of France is YARA France SAS. The host Party France meets the requirements to participate in the JI track 1 (see chapter 1.1). Other project participants are YARA International ASA, Oslo (Norway) and N-serve Germany. The parties involved are not PP. Currently, only France and Germany have officially published its national guidelines and procedures for the approval of JI projects. Meanwhile, for Norway these documents are currently not available on JI-SC website. Therefore there is a risk in receiving the investor party's approval. However, this issue is out of the direct influence of the project participants.

The LoA of the DFP of France is still outstanding, but is expected in the next months.

3.2 Project design document

The PDD is compliant with the form published by the French DFP (IRL-No. 20, see Annex 2).

3.3 Project description

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

As described in the current PDD, YARA Pardies Nitric acid plant operates since 1960 one nitric acid production unit with two production lines (2 AORs) on its Pardies site with a total capacity of maximum daily production output of 430 metric tonnes of HNO_3 (100% conc.) or a maximum annual production output of 146,200 metric tonnes of HNO_3 (100% conc.), based on 340 days per year of plant operation.

To produce nitric acid, ammonia (NH3) is reacted with air over precious metal – normally a platinum-rhodium-palladium (Pt-Rh-Pd) alloy – catalyst gauze pack in the Ammonia Oxidation Reactor (AOR) of the nitric acid plant. The main product of this reaction is NO, which is metastable at the conditions present in the ammonia oxidation reactor:

$$4\ NH_3 + 5\ O_2 \rightarrow 4\ NO + 6\ H_2O$$

Simultaneously, undesired side reactions yield nitrous oxide (N_2O), nitrogen and water:

$$4\ NH_3 + 4\ O_2 \rightarrow 6\ H_2O + 2\ N_2O$$

$$4\ NH_3 + 3\ O_2 \rightarrow 6\ H_2O + 2\ N$$

The NO from the primary reaction is then further oxidised to form NO_2:

$$2\ NO + O_2 \rightarrow 2\ NO_2$$

The NO_2 is later absorbed in water to produce HNO_3 – nitric acid:

$$2\ NO_2 + H_2O \rightarrow HNO_3 + HNO_2$$

$$3HNO_2 \rightarrow HNO_3 + NO + H_2O$$

Nitric Acid is produced on three different percentages, 53% HNO_3, which is used as a raw material for the production of Ammonium Nitrate on-site at Pardies, 63% HNO_3 which is exported to customers and 100% HNO_3 which is sold for nitration.

From 2002 to 2008 the utilization of a N_2O abatement catalyst that was developed by Yara International ASA, has been investigated on an industrial trial basis in the Pardies plant. In january 2009, the two burners were half filled with new catalyst (760kg in each, making a total of 1,520kg) in order to be able to comply with the upcoming Arrêté Préfectoral that is likely to be applied by the end of 2009. In mid August 2009, the baskets underneath the primary catalyst in the ammonia oxidation reactors were filled to their maximum capacity with a total extra 1,600kg of catalyst (type: YARA58 Y 1 ® - 800kg per burner, which was sent from the Ambès plant) in order to undertake the project activity and achieve the maximum emissions reductions possible. The catalyst YARA58 Y 1 ® and the equipment have following characteristics:

- Size of catalyst tablets: 9 mm
- Composition of catalyst: > 80% CeO_2, < 1% CoO
- Bulk density: 1.13 kg/l
- Basket: 3300 mm diameter, 150 mm depth
- Ammonia oxidation reactor pressure: 3.6 bar

The information presented in the PDD on the technical design is consistent with the actual planning and implementation of the project activity as confirmed by:

- The review and cross check of data and information (see annex 2).
- An on-site visit which has been performed. Relevant stakeholder and personnel with knowledge of the project were interviewed. In case of doubt, further cross checks through additional interviews were conducted.
- Information related to similar projects or technologies which have been used to validate the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the project description, as included in the PDD, is sufficiently accurate and complete in order to comply with the general and specific JI requirements.

3.4 Reference case scenario and monitoring methodology

3.4.1 Applicability of the selected methodology

The selected methodology has been approved by the host country (see IRL No. 5).

Compliance with each applicability condition as listed in the chosen project specific reference case scenario and monitoring methodology has been demonstrated.

The assessment was carried out for each applicability criteria and included, among other checks, the compliance check of the local project setting with the applicability conditions in regard to reference case scenario setting and eligible project measures. This assessment also included the review of secondary sources, which further demonstrate that applicability conditions have been complied with.

The specific protocol that has been derived from the project specific methodology, included in the annex 1, documents the assessment process. The protocol also includes the steps taken in the as-

sessment process. The results of the compliance check as well as relevant evidence are detailed in annex 1.

TÜV SÜD confirms that the chosen project specific reference case scenario and monitoring methodology is applicable to the project activity.

Emission sources, which are not addressed by the applied methodology, and which are expected to contribute more than 1% of the overall expected average annual emission reductions, have not been identified, as for *Integrated Pollution Prevention and Control Reference Document on Best Available Techniques (BREF) for the manufacture of Large Volume Inorganic Chemicals – Ammonia, Acids and Fertilizers* (IRL-No. 18).

3.4.2 Project boundary

The project boundary was assessed considering information gathered from the physical site inspection, interviews, and secondary evidence received on the design of the project.

The project boundary entails all parts of the nitric acid plant in so far as they are needed for the nitric acid production process itself. With regard to the process sequence, the project boundary begins at the inlets to the ammonia burner and ends at the tail gas stack. Any form of NO_X-abatement device shall also be regarded as being within the project boundary.

The 2 Selective Catalytic Reduction (SCR) units (one for each production line) for the reduction of NOx emissions at YARA Pardies shall be regarded as being within the project boundary. This is because SCR technology does not reduce N_2O emission levels and thus the applicable benchmark value shall be unaffected.

- The project boundary includes all parts of the nitric acid plant in so far as they are needed for the nitric acid production process itself, beginning at the inlets to the ammonia burner and ending at the tail gas stack. Any form of NO_X-abatement device shall also be regarded as being within the project boundary.

  Relevant documentation assessed to confirm the project boundary are listed below:
  - *arrêté prefectoral* (plant operation permit) of 25 January 1999 (IRL-No. 9) and
  - *draft arrêté prefectoral* (plant operation permit) of 4 May 2010 (IRL-No. 34).

Therefore, TÜV SÜD confirms that the identified boundary, the selected sources, and gases as documented in the PDD are justified for the project activity and are fully in line with the requirements set by the applied methodology.

3.4.3 Reference case scenario identification

The PDD defines the following reference case scenario:

- *Business as usual scenario (contiunation of status quo with continuation of operation with the part of secondary catalyst installed that is necessary to comply with the national regulations)*

The information presented in the PDD has been determined by an initial document review of all data. Further confirmation has been made based on the on-site visit and researched information from

similar projects and/or technologies. The sources referenced in the PDD have been quoted correctly. The information was verified against credible sources, such as:

- IRL-No. 9: *arrêté prefectoral* (plant operation permit) of 25 January 1999
- IRL-No. 34: *arrêté prefectoral* (plant operation permit) of 4 May 2010
-
- IRL-No. 21: meeting of MEEDDAT and French fertilizer association UNIFA with subject: "*Projets Domestiques*"

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions used for project activity calculations, TÜV SÜD considers that the identified reference case scenario is reasonable.

Taking the definition of the reference case scenario into account, TÜV SÜD confirms that all relevant JI requirements, including relevant and/or sectoral policies and circumstances, have been identified correctly in the project PDD.

A verifiable description of the reference case scenario has been included in the PDD. The ERU calculation (IRL-No. 36) is conservative taking into account that a six month earlier implementation of the lower emission factor required in the updated arrêté préfectorale (IRL-No. 34) up from end of June 2012 has been assumed.

TÜV SÜD confirms that:

1. All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
2. All documentation used is relevant for establishing the reference case scenario and correctly quoted and interpreted in the PDD;
3. Assumptions and data used in the identification of the reference case scenario are justified appropriately, supported by evidence, and can be deemed reasonable;
4. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
5. The approved reference case methodology has been correctly applied to identify the most reasonable reference case scenario, and the identified reference case scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

Details to the reference case scenario are given in chapter 3.4.4.1 below.

3.4.4 Algorithm and/or formulae used to determine emission reductions

TÜV SÜD has assessed the calculations of project emissions, reference case scenario emissions and emission reductions. Corresponding calculations were carried out based on calculation spreadsheets (IRL-No. 8). The parameters and equations presented in the PDD, as well as other applicable documents, have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files.

The assumptions and data used to determine the emission reductions are listed in the PDD and all the sources have been checked and confirmed.
Based on the information reviewed it can be confirmed that the sources used are correctly quoted and interpreted in the PDD.

The values presented in the PDD are considered reasonable based on the documentation and references reviewed and the results of the interviews.
The reference case methodology has been correctly applied.
The estimate of the reference case emissions can be confirmed as the same reference case emissions results have been replicated by the audit team using the information provided.
Detailed information on the verification of the parameters used in the equations can be found in annex 1. The algorithms for the determination of the reference case and project are discussed in the following sections.

3.4.4.1 Reference case scenario emissions

The calculation of the reference case scenario emissions of this two lines project activity was conducted according to the procedure described in the project specific methodology. According to YARA Pardies internal data measurements from year January to April 2002 checked by the audit team, the average EF prior to installation of 2ndary catalyst is calculated to 5.7 $kgN_2O/tHNO_3$. The calculation is based on the Empirical correlation between specific N2O emission levels and N2O concentrations in tail gases of IPPC BREF paper.

The project specific methodology (IRL-No. 3) applies a **benchmark value of 2.5 $kgN_2O/tHNO_3$** for the period until 31st December 2011, followed by a value of 1.85 $kgN_2O/tHNO_3$ for the period until 31st December 2012.

The final N2O limit confirmation in the future permit of operation of the plant from the arrêté prefectoral is expected for 2010. This will be forwarded to the verifying AIE as soon as it has been issued to the plant and will be cross-checked during the first periodic verification (see FAR 1 in Annex 1).

If any of the above benchmark values are subsequently revised during the course of the project activity, the project proponents explicitly reserve the right to apply such new benchmark values for the respective project periods. The tentative new benchmark emission factor shall be below the actual baseline emission factor in order to ensure that ERUs are claimed only for *real* emission reductions.

All sources mentioned above are available and have been checked by the audit team. Thus, the benchmark emission factor can be confirmed.

3.4.5 Project emissions

According to 'Arrêté du 2 Février 1998'of the 'Ministère de l'écologie et du développement durable', a compulsory limit of 7 $kgN_2O/tHNO_3$ applicable to HNO_3 plants in French commissioned after February 1998. This is not applicable to this project activity since the plant was commissioned in 1960.

Anyway, YARA Pardies Nitric Acid Plant internal data measurements from 2002 (IRL-No.16) showed that the average EF prior to installation of secondary catalyst is approximately about 5,7 $kgN_2O/tHNO_3$. Taking into account an abatement efficiency of 95% of secondary catalyst, which is based on QAL 2 tested AMS results, PP has calculated an ex-ante **project emission level of 0.285 $kgN_2O/tHNO_3$**. Initially, an abatement efficiency of 80% has been stated in the PDD for GSP. This figure was a first conservative estimation based on the minimum guaranteed abatement performance of the catalyst supplier.

Official QAL 2 reports for each line are available (see IRL-Numbers 38 and 39). The evidence for Yara Pardies Nitric Acid Plant internal data measurements has been checked by the audit team The updated abatement efficiency value has been cross-checked by experiences from similar projects. Hence, the AIE can accept this change in the design and the project emission factor is deemed to be credible.

3.4.6 Leakage

As per the methodology, the project does not need to consider leakage emissions.

3.4.7 Emission Reductions

The annual ex-ante emission reductions have been calculated by an excel file (IRL-No. 8) as for the formula of the project specific methodology, taking into account the following parameters,

- Benchmark emission factor (see chapter 3.4.4)
- Project emission factor (see chapter 3.4.5)
- Nitric acid production for the Verification Period n ($tHNO_3$)
- Global Warming Potential : 310 tCO_2e/tN_2O
- Reduction factor of 90% required by the project specific methodology.

The budgeted annual nitric acid production of 146,200 $tHNO_3$ is based on a credible plant operation time of 340 days considering shut downs, e.g. for maintenance purposes (see chapter 3.3). The reduction factor is in accordance with Article 15 of the French linking directive from 2 March 2007 (IRL-No. 10).

For each line one AMS is installed. The calculation of nitric acid produced at Pardies is based on three separate sources. The results are compared with one another to ensure consistency and detect any deviations:

- One Flexim mass flow meter is installed on each of the three concentration streams. The total HNO_3 production is then calculated for 100% concentration by multiplying the mass flow by the concentration of each stream.
- Stoichiometric calculation using the ammonia consumption of the AORs and the conversion and absorption efficiencies
- Variations in the nitric acid storage levels, considering the consumption and loading values for each product.

Hence, the calculation of ERUs is more conservative. In summary, the calculation of the reference case emissions; project emissions, and the emission reductions, respectively, can be considered correct.

3.5 Additionality

The additionality of the project has been presented in the PDD using a step-by-step assessment as described in the project specific methodology “Catalytic reduction of N2O at nitric acid plants”. According to Article 10 of the French linking directive from 2 March 2007 (IRL-No. 10) an investment

analysis including IRR calculation has to be done for the project activity. In Annex 3 of the same directive the additionality approach of the project specific methodology is indicated.

The approach used in the PDD has been assessed initially through the document review, during which the following documents were reviewed:

- Project specific methodology (IRL-No. 3)
- Linking directive from 2 March 2007 (IRL-No. 10)

On site, the additionality was discussed principally with Mr. Patrick Marias (production manager of Yara Pardies Nitric Acid Plant) and Ms. Rebecca Cardani Strange (project manager of N-serve Germany. Further documents have been reviewed on-site (annex 2).

Based on this information we can confirm that the documentation assessed is appropriate for this project.

3.5.1 Starting Date of the Project Activity

The starting date of the project activity is determined by the mail, dated 12 March 2009 of Yara Pardies, confirming to Yara International SAS the quantity of N2O catalyst needed to fill the baskets to their maximum capacity.In order to check this information, the assessment team has reviewed this document and other mails (see IRL-No. 13).

The starting date of the project has been determined to be 12 March 2009 which is before the GSP.

According to the e-mail from the vice president of Yara group from 11 July 2008, the “projet domestique” (national JI track 1) has been envisaged for this project activity among others together with the decision to involve N-serve Germany as project developer.

Therefore it can be confirmed that the project complies with the requirements regarding prior consideration of JI.

3.5.2 Identifications of alternatives

The aim of the project is to abate N_2O, hence, there is no output by the project.

The list of alternatives to abate N_2O as presented in the PDD includes the project activity undertaken without being registered as a JI project and the continuation of the situation prior to the implementation of the proposed project activity. The remaining alternatives presented do include all plausible scenarios taking into account the local and sectoral situations for this abatement project. The list of alternatives is therefore considered complete.

3.5.3 Step-by-step assessment (Barrier analysis)

According to the project specific methodology, the PP has used the step-by-step assessment (barrier analysis) in order to demonstrate the additionality of the project. The presented barriers are:

- Investment Barrier,
- Technological Barrier and
- Common Practice Barrier.

The **investment barrier** presented in Annex 4 of the PP (project costs and revenues) as well as in the excel calculation financial table (IRL-No. 17) has been assessed against the following two requirements:

- Project specific methodology (IRL-No. 3)
- Linking directive from 2 March 2007 (IRL-No. 10).

The following official documents have been checked for the assessment of the barrier analysis:

- catalyst quantity and transport agreement contract (IRL-No. 13)
- order of monitoring equipment (IRL-No. 14)
- AMS engineering and maintenance costs (IRL-No. 22).

The figures presented in Annex 4 are deemed to be conservative and a calculation with ERUs for estimated 9 € shows a return of invest up from 2010.

The result of this assessment clearly shows that the calculation presented in Annex 4 of the PDD can be considered as complete and correct compared to the two investment barrier requirements listed above. This is confirmed through the documentation review, interviews, and the local and sectoral expertise of the assessment team as well as the BREF-Paper (IRL-No. 18).

Hence, the correct application of the national investment barrier requirements can be confirmed by the audit team and the project activity is deemed to be additional in terms of this barrier..

As **technological barriers** the following technical risks have been stated in the PDD:

- bed depth of catalyst installed inside the burner (increased risk of pressure drop) and
- depending on the load of catalyst, the supporting containment structure has to be stronger and more technical modifications will need to be made.

These technological barriers are deemed to be credible since in the reference scenario only a trial catalyst with less load as kind of pilot facility has been used.

As for the **common practice barrier**, it can be confirmed that no similar project(s) is/are running parallel to this project activity. The available power point presentation from the meeting of UNIFA and MEEDDM regarding Projects Domestiques from April 2009 (IRL- No. 21) indicates that the secondary catalyst is not common practice in the sector for HNO_3 production in France.

Taking into account the description of the determination of the barriers presented above, the assessment team can confirm, with reasonable certainty, that the barriers are credible and correctly presented to demonstrate the additionality of the project.

3.5.4 Common practice analysis

The region for the common practice analysis has been defined as the area of France. As a result, the region is defined by taking into account similar technologies as well as similar industry types.

The assessment team has reviewed official sources such as:

- IRL-No. 21: meeting of MEEDDAT and French fertilizer association UNIFA with subject: "*Projets Domestiques*"

This information confirms that all similar projects in France applied for JI or are currently applying for JI..

Therefore, it can be confirmed that the proposed JI activity is not a common practice in the defined region.

3.6 Monitoring plan

The monitoring plan presented in the PDD complies with the requirements of the applicable project specific methodology. The assessment team has verified all parameters in the monitoring plan against the requirements of the methodology; no relevant deviations have been found in the final PDD (see Annex 2).

The Project Emissions will be calculated separately for each line. The resulting figures are then added together to derive 'PE_n total' and divided by the total output of 100% concentrated nitric acid of the plant for that period. This results in the plant-specific project emissions factor, representing the average N_2O emissions per tonne of nitric acid over the respective Verification Period.

The monitoring plan has been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided, together with a physical inspection, allows the assessment team to confirm that the proposed monitoring plan is feasible, and within the project design. The major parameters to be monitored have been discussed with the PPs. In specific, these parameters include the location of meters, data management, and the quality assurance and quality control procedures to be implemented in the context of the project.

Example: N2O analyser in the tail gas stack

- Automatic continuous measurement with Dr. Födisch MCA 04 hot extractive analyser
- AMS is subject to regular checking and calibrations that will take place according to vendor specifications and EN14181

Therefore, we find that the PP's will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

The LoA of the host country that is deemed to confirm this statement is still outstanding, but is expected in the next months.

3.7 Local stakeholder consultation

According to the DFP of France local stakeholder consultation meeting is not required.

3.8 Environmental impacts

The project participants did not undertake an environmental impact assessment since it is not required by the DFP of the host country. But, an analysis of environmental impacts has been conducted. The assessment team reviewed the documentation of the presented information. Due to the available information and our experience for such project activities, negative environmental impact by the project activity is not expected. We conclude that the PPs followed the requirements of the host country in regard to environmental impacts.

Industrie Service

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on the UNFCCC website, and invited comments by affected Parties, stakeholders, and non-governmental organisations during a 30 day period.

The following table presents all gathered key information:

website: http://www.netinform.de/KE/Wegweiser/Guide22.aspx?ID=6282&Ebene1_ID=50&Ebene2_ID=2048&mode=5	
Starting date of the global stakeholder consultation process: 2009-08-24	
Comment submitted by: None	**Issues raised:** -
Response by TÜV SÜD: -	

Industrie Service

5 DETERMINATION OPINION

TÜV SÜD has performed a determination of the following proposed JI track 1 project activity in France:

Yara Pardies N_2O Abatement Project

Standard auditing techniques have been used for the determination of the project. Methodology-specific customized checklists and a protocol for the project have been prepared to carry out the audit in order to present the outcome in a transparent and comprehensive manner.

The review of the project design documentation, subsequent follow-up interviews and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In our opinion, the project meets all national guidelines and procedures of the host country France for JI track 1 (http://ji.unfccc.int/JI_Parties/PartiesList.html#France) as well as the specific requirements of the LoE of the DFP of France if the underlying assumptions do not change. Subject to the still outstanding LoA of the host country, TÜV SÜD will recommend the project for registration by the DFP of France.

An analysis, as provided by the applied project specific methodology, demonstrates that the proposed project activity is not a likely reference case scenario. Emission reductions attributable to the project are additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, and subject to the addressed Forward Action Request 1 (issuance of the final Arrêté Préfectorale), the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The determination is based on the information made available to us, as well as the engagement conditions detailed in this report. The determination has been performed according to the DVM. TÜV SÜD can therefore not be held liable by any party for decisions made, or not made, based on the validation opinion beyond that purpose.

Munich, 5-07-2010

Thomas Kleiser

Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Munich, 5-07-2010

Nikolaus Kröger

Assessment Team Leader

Annex 1: Determination Protocol

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
***A.* General description of project activity**				
A.1. Title of the project activity				
A.1.1.1. Does the project title clearly enable the identification of a unique JI project activity?	1, 2 20	Yes. The project title mentioned in the PDD as "YARA Pardies N_2O abatement project" clearly enables the identification of a unique JI project activity. The structure of the PDD follows the template that has been provided by the French DFP.	☑	☑
A.1.1.2. Are there any indication concerning the revision number and the date of the revision?	1,	Yes, revision and date are indicated in the PDD.	☑	☑
A.1.1.3. Is this consistent with the time line of the project's history?	1, 2, 8	Yes, see comments to A.2.1.2	☑	☑
A.2. Description of the project activity				
A.2.1.1. Is the description delivering a transparent overview of the project activities?	1, 2, 9	The sole purpose of the proposed project activity is to catalytically reduce N_2O from HNO_3 production nitric acid at YARA's nitric acid plant in Pardies, France, by employing secondary abatement catalyst. This will drastically reduce N_2O emissions from this plant and therefore help in mitigating the effects of climate change. This has been described in the PDD in a transparent manner. According to the draft operation permit (*Arrêté Préfectorale*), the plant capacity is 430 tons per day HNO_3 production (see CR1). The yearly production is stated in the PDD with 146,200 HNO_3	☑	☑

	29	production, assuming 340 days of operation per year. As information has been gathered during the on-site audit the production of HNO_3 was reported in 2007 for 147,000 t and in 2008 for 154,000 t.		
A.2.1.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	7 12 23 11 9 32	The following time line for project implementation including the history of the period prior to the project implementation has been presented during the audit: • Industrial trial (about 700 kg mass): 4/2002 to 4/2009 • JI consideration by Yara group • PIN:_March 2009 • LoE: 4/2009 explicitly for the similar projects in Ambès and Montoir, to be confirmed for Pardies site (see CR1) • Draft operation permit: from 1999 with 430 t max HNO3 plant capacity with written statement of the governmental inspectorate (DRIRE) by e-mail communication from Mai 2009 • Start of catalyst operation in 8/2009, (3120 kg mass) • The monitoring system is installed **Clarification Request #1.** a) A confirmation from MEEDDM that the available LoE for Ambès and Montoir is valid as well for Pardies needs to be provided to the AIE. b) The figures for the capacity of the HNO_3 production and the CO_2 emissions indicated in the PDD are not consistent with the capacity in the draft operation permit.	CR 1	☑

		30	c) The yearly capacity of HNO_3 in the PDD is not consistent with that one in the ERU excel file. d) As information has been gathered during the on-site audit and is available by the process manual, there is a need to explain in the PDD in more detail the different manufacturing processes for the different types of HNO_3 produced and their interactions (see also CAR5a).		
A.2.1.3.	Is the information provided by these proofs consistent with the information provided by the PDD?	1, 2, 7	*See CR 1*	*See CR1*	☑
A.2.1.4.	Is all information presented consistent with details provided in further chapters of the PDD?	1, 2, 7	*See CR 1*	*See CR1*	☑
A.3. Project participants					
A.3.1.1.	Is the form required for the indication of project participants correctly applied?	1, 2	**Corrective Action Request No.1.** The form for indicating the French project participant is not consistent with Annex 1.	CAR 1	☑
A.3.1.2.	Is the participation of the listed entities or Parties confirmed by each one of them?	1, 2	See chapter A.5	☑	☑
A.3.1.3.	Is all information on participants / Parties provided in consistency with details pro-	1, 2	See CAR1	See CAR 1	☑

	vided by further chapters of the PDD (in particular annex 1)?				
A.4. Technical description of the project activity					
A.4.1.	Location of the project activity				
A.4.1.1.	Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1, 2, 7	Yes, the information on the location of the project activity is sufficient to clearly indentify the project site. The project activity is located in Pardies, France. **Corrective Action Request No.2.** a) The GPS coordinates of a reference point of the project activity, e.g. plant absorption tower or tail gas stack, need to be indicated in the PDD. b) The description of the map is not consistent with the map itself.	CAR 2	☑
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts, etc.)?	7, 9	Yara France has been operating this HNO_3 production plant in Pardies since 1960. The draft operation permit of 1999 covers the permit of operation. An e-mail from a governmental inspectorate (DRIRE) from Mai 1999 states a likely project benchmark value of 2.5 kg N_2O/t HNO_3 that is going to be suggested as benchmark value to the local authority. Since a final operation permit is not yet available, this information from DRIRE is deemed to be sufficient for the Audit team to confirm the benchmark value of the methodology. **Corrective Action Request No.3.** The statement in the PDD regarding the quantity of catalyst needed to respect the benchmark factor is not clear enough and	CAR3	☑

		17	has to be revised; additionally consistency of the figures with the financial investment excel file has to be provided.		
A.4.2.	Technology(s) to be employed, or measures, operations or actions to be implemented by the project activity				
A.4.2.1.	Does the technical design of the project activity reflect current good practices?	1, 2, 7	The project intends to employ well known and tested N_2O abatement technology involving the deployment of high efficient secondary catalyst. The project would not result to an increase in any GHG emissions and has not got any negative environmental impacts. The technology therefore reflects current good practice in the industry.	☑	☑
A.4.2.2.	Does the description of the technology to be applied provide sufficient and transparent input / information to evaluate its impact on the GHG balance?	1, 2, 7 17	The secondary catalyst that is the main project measure is characterized as following according to the purchase order that has been submitted to the audit team. • Type: YARA58 Y 1 ® • Net weight of catalyst: 1520 kg max • Size of catalyst tablets: 9 mm • Composition of catalyst: > 80% CeO_2, < 1% CoO • Bulk density: 1.13 kg/l • Unit prize: Remark that no cost was involved for catalyst (see comments to B.5.5.1) investment barrier) • Basket: 4650 mm diameter, 150 mm depth • Ammonia oxidation reactor pressure: 3.6 bar	☑	☑

A.4.2.3.	Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(s)?	1, 2, 7	The project relevant secondary catalyst already has been delivered by Yara group Norway which is not the manufacturer as information was shared during the on-site audit. The catalyst is manufactured by a Polish company called “Instytut Szkla, Ceramiki, Materialow, Ogniotrwalych i Budovlanych” (Institue of Glass, Ceramics, Refractory and Construction Materials). Hence, the project activity requires technology transfer from Poland as annex-I-countrys to the host country France.	☑	☑
A.4.2.4.	Is the technology implemented by the project activity environmentally safe?	1, 2, 7	The project would not result to an increase in any GHG emissions or to an increase in NO_x emissions. As for page 124 of *Integrated Pollution Prevention and Control Reference Document on Best Available Techniques (IPPC BREF) for the manufacture of Large Volume Inorganic Chemicals – Ammonia, Acids and Fertilizers*, there is no negative environmental impact caused by the application of the secondary catalyst, e.g. cobalt oxide particles. Furthermore, this document provides information stating that there are no losses in NO yield.	☑	☑
A.4.2.5.	Is the information provided in compliance with actual situation or planning?	1, 2, 7	Yes, the information provided in the PDD is in compliance with actual planning phase.	☑	☑
A.4.2.6.	Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 2, 7	Yes, the project technology has been well tested and used in many N_2O abatement projects in the world.	☑	☑
A.4.2.7.	Is the project technology likely to be	1, 2, 7	As stated by the project owner, it is not foreseen to be replaced	☑	☑

	substituted by other or more efficient technologies within the project period?		during the course of the crediting period by any other better technology (see also chapter C for the projected lifetime of the project).		
A.4.2.8.	Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1, 2, 7	**Clarification Request #2.** If applicable, a service contract between Yara and the supplier of the AMS (Dr. Födisch), incl. training and service agreements, has to be provided to the AIE.	CR 2	☑
A.4.2.9.	Is information available on the demand and requirements for training and maintenance?	1, 2, 7	*See CR2*	See CR2	☑
A.4.2.10.	Is there a brief explanation of how the anthropogenic emissions of GHGs by sources are to be reduced by the proposed JI project, including why the emission reduction would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances?	1, 2 15	As for the approved methodology, the French DFP (Le Ministère de l'Écologie, de l'Énergie, du Développement Durable et de l'Aménagement du Territoire - MEEDDM) has provided a Benchmark Emissions Factor (EF_{BM} = 2.5 $kgN_2O/tHNO_3$) to be applied by all nitric acid plants eligible to undertake JI projects regardless of their size, their technical characteristics and their past and present emissions levels. This benchmark is valid till December 31, 2011. Thereafter, a value of 1.85 $kgN_2O/tHNO_3$ will be applicable until December 31, 2012. According to 'Arrêté du 2 Février 1998'of the 'Ministère de l'écologie et du développement durable', a compulsory limit of 7 $kgN_2O/tHNO_3$ applicable to HNO_3 plants in French commissioned after February 1998. This is not applicable to this project activity since the plant was commissioned in the beginning in 1960. According to YARA Pardies internal data measurements from	☑	☑

	16 18 9 32 33 32	year January to April 2002 checked by the audit team, the average EF prior to installation of 2ndary catalyst is calculated to 5.7 $kgN_2O/tHNO_3$. The calculation is based on the Empirical correlation between specific N2O emission levels and N2O concentrations in tail gases of IPPC BREF paper. PP has calculated a project emission level of 0.285 $kgN_2O/tHNO_3$,taking into account an abatement efficiency of 95% which is Yara experienced value and complies with the methodology. However, the methodology does not require special procedure to estimate ex-ante the project emission factor. According to the permit of year 1999 the limit value for NOx emissions in the stack of the installation for production of nitric acid up from 2001 is 4.5 kg NOx/t HNO_3. According to an e-mail from DRIRE to Yara a limit value of 200 ppm of NOx id required. In reply by an e-mail from Yara to the state inspectorat (DRIRE) the NOx concentration measured with the existing FINETECH analyser was between 100 and 200 ppm. Hence, the project plant is deemed to be in legal compliance regarding NOx emissions. A limit value for N2O is not indicated in the AP. Meanwhile, according to the e-mail of the state inspectorat (DRIRE) a limit value of 2. 5 kg N2O/t HNO3 is required. This value is fully consistent with the benchmark EF of the methodology and PDD.		
A.4.2.11. Is the explanation transparent, feasible and – if based on calculations – mathematical correct calculated?	1, 2, 8	See CAR 8	See CAR 8	☑
A.4.2.12. Is a schedule available for the implementation of the project and are there any	1, 2, 7	Considering that PP has undertaken extensive industrial testing of the technology and has already installed the project second-	☑	☑

	risks for delays?		ary catalysts at the plants. Although, the AMS is not yet installed, there is no risk of delays involved in the implementation of the project.		
A.4.3.	Estimated amount of emission reductions over the chosen crediting period				
A.4.3.1.	Is the form required for the indication of projected emission reductions correctly applied?	1, 2, 20	PP has applied correctly the PDD format from the French DFP.	☑	☑
A.4.3.2.	Are the figures provided consistent with other data presented in the PDD?	1, 2, 8	**Clarification Request #3.** The figures in table 1 of the PDD are not consistent with the ones in the ERU calculation excel file.	CR3	☑
A.5	***Project approval by the participants***				
A.5.1	Is the state of endorsement or approval by the host party clearly defined and a Letter of Endorsement (LoE), Letter of Approval (LoA) or any alternative statement of authorization available?	1, 2, 11	As for the LoE, see CR1a. LoA of each participating party will be provided latest before requesting the issuance of credits.	See CR1a	☑
A.5.2	Is the state of endorsement or approval by any other parties e.g. investing parties clearly defined and a Letter of Endorsement (LoE), Letter of Approval (LoA) or any alternative statement of authorization available?	1, 2, 11	See CR1a	See CR1a	☑

***B.* Reference Case Scenario and Monitoring Methodology**				
B.1 Title of the reference case and monitoring methodology to be applied to the project activity				
B.1.1 Are reference number, version number, and title of the reference scenario and monitoring methodology clearly indicated?	1, 2, 3, 4 5	The project applies a project specific methodology from the French DFP titled “Catalytic reduction of N2O at nitric acid plants.” The evidence for the official approval of the methodology by the French DFP is available.	☑	☑
B.1.2 Is the applied version the most recent one and / or is this version still applicable?	1, 2, 3, 4	A version number is not indicated in the methodology since it is the first version.	☑	☑
B.2 Justification of the choice of the methodology and reasons for which is it applicable for the project activity				
B.2.1 Applicability Criterion 1: N_2O reduction activities undertaken with a tertiary catalyst, which is usually housed in a specific tail gas treatment reactor towards the end of the production process.	1, 2, 3, 4 5	Not applicable here since a secondary catalyst has been installed. **Corrective Action Request No.4.** The statement in the PDD that the methodology is not yet approved needs to be revised.	CAR4	☑
B.2.2 Applicability Criterion 2: Instead of applying a historic emissions factor, established by measuring the quantity of N_2O emitted per tonne of 100% concentrated nitric acid produced – a unique benchmark emissions value will be applied for all nitric acid plants on French territory of 2.5 kgN_2O / tHNO_3 in 2009, 2010 and 2011, then of 1.85 kgN_2O / t HNO_3 in 2012.	1, 2, 3, 4	This criterion has been applied correctly in the PDD.	☑	☑

Specific Template from methology Catalytic reduction of N2O at nitric acid plants; CAR = Corrective Action Request; CR = Clarification Request; FAR = Forward Action Request

B.2.3 Applicability Criterion 3: A N_2O abatement catalyst is installed in a nitric acid plant located in France.	1, 2, 3, 4	PP has been undertaking some industrial testing of the secondary catalyst to be employed in the project activity (see time schedule in A.2.1.2). This testing has bee accomplished before the start of the project activity and the installed catalyst was removed. However, PP has recently installed the secondary catalyst for the project activity.	☑	☑
B.2.4 Applicability Criterion 4: The project activity will not lead to an in crease in NO_X emissions.	1, 2, 3, 4	The project activity will not increase NO_X emissions. Industrial testing has shown that the secondary catalyst technology installed has no effect on NO_X emission levels. Not applicable in secondary abatement technology (See IPPCC BREF paper for this sector).	☑	☑
B.2.5 Applicability Criterion 5: The project will not result in the shut-down of any existing N_2O destruction or abatement technology. In cases where non-N_2O emissions are known to occur (e.g. with a tertiary N_2O abatement technology) a project can be submitted under this methodology only if the other non-N_2O Greenhouse Gas emissions are accounted for in accordance with the relevant annex to this methodology.	1, 2, 3, 4	The trial catalyst that has been tested from 2/2002 to 4/2002 had a lower capacity and is not deemed to be an existing N_2O abatement technology. There are currently national and/or local regulatory requirements to limit N_2O emissions in France. However, there are no incentives to voluntarily reduce the level of N_2O emissions below the required limit value. According to the methodology, no leakage emissions are considered, because the applied technology is a secondary catalyst and not a tertiary catalytic reduction. No hydro-carbons are used as reducing agents. Therefore no other GHGs are considered but N_2O.	☑	☑

B.3	**Description of how the definition of the project boundary is applied to the project activity**				
B.3.1	Is the table in the PDD consistent with that one in the methodology?	1, 2, 3, 4, 7	Boundary checklist / Yes / No Source and gas(s) discussed in the PDD? **No** Inclusion / exclusion justified? Yes Explanation / Justification sufficient? Yes Consistency with monitoring plan? Yes According to the methodology, the only GHG to be included in the project boundary is N_2O contained in the waste stream of the HNO_3 emitted into the atmosphere via stack. **Corrective Action Request No.5.** a) An appropriate project scheme visualizing the different HNO3 manufacturing processes and their interference within project boundary is still missing in the PDD. b) In order to comply with the form of the methodology, PP has to include in the table of chapter B.3 of the PDD for the reference scenario the appropriate applicability answer for N_2O.	CAR 5	☑
B.3.2	Does the extent of the project boundary cover all technology and equipment necessary for the complete nitric acid production process, from the inlet of the ammonia burner to the stack, including all compressors, tail gas expander turbines and any NOX abatement equipment installed?	1, 2, 3, 4, 7	See CAR5	See CAR 5	☑
B.3.3	Has is been taken into account that in case a tertiary catalyst technology is applied that entails the injection of a reducing agent, will project proponents also have to account for any CO_2 and / or CH_4 emissions?	1, 2, 3, 4, 7	Not applicable here, since secondary catalyst is installed.	☑	☑

Specific Template from methology Catalytic reduction of N2O at nitric acid plants; CAR = Corrective Action Request; CR = Clarification Request; FAR = Forward Action Request

B.3.4 Is a plant-specific flow diagram provided in the PDD to demonstrate the project boundary of the particular nitric acid plant(s) involved in the project activity?	1, 2, 3, 4, 7	See CAR5a	see CAR 5a	☑
B.4 Identification and Description of the Reference Case Scenario (Business As Usual Scenario)				
B.4.1 Have all technically feasible reference scenario alternatives to the project activity been identified and discussed in the PDD according to the project specific methodology? Why can this list be considered as being complete?	1, 2, 7	PP has discussed all technically feasible reference scenario alternatives to the project activity taking into account national and/or local compliance requirements. The list is considered to be completed since it comprises as well the alternative of the project activity undertaken without revenue from the sales of ERUs.	☑	☑
B.4.2 Step 1: Have the reference case scenarios been discussed that are technically feasible within the framework of the project activity?	1, 2, 7	In order to comply with NO_X regulations Yara Pardies has installed two SCR abatement catalysts. Yara Pardies has not installed any NSCR de-NOX catalyst unit. This would be considered uneconomical because Pardies is already in compliance with the prevailing NO_X regulations with its SCR unit. **Clarification Request #4.** It should be taken into account that as a consequence of new NOX regulations over the course of the crediting period of the proposed project activity the most conservative reference scenario can be changed and needs to be of re-assessed. In such a case the additionality of the project must be re-determined. It has to be clarified if the conclusion box at the end of chapter B.4	CR4	☑

		ensures the monitoring of this legal parameter.		
B.4.3 Step 2: Have all the reference scenario alternatives been eliminated that do not comply with national or local regulations?	1, 2, 10	Yes, the project identifies correctly and excludes those options not in line with national and/or local regulatory or legal requirements. In France, the most relevant documents of legislation are: 1. 'Décret n° 2006-622 du 29 mai 2006 for the application of articles L. 229-20 to L. 229-24 of the 'code de l'environnement' 2. 'Arrêté du 2 mars 2007'of the 'Ministère de l'écologie et du développement durable', a compulsory limit of 7kgN_2O/tHNO_3 applicable to HNO_3 plants in French commissioned after February 1998 3. EU ETS Directives	☑	☑
B.4.4 Step 3: Have all the reference scenario alternatives been eliminated that would face prohibitive barriers (barrier analysis)?	1, 2 21	Yes, a list of barriers comprising of investment barriers, technological barriers and barriers due to common practice has been included in the PDD. This can be considered to be complete. Regarding common practice analysis, the PP referred to publication of UNIFA – association of French fertilizer industries meeting with French DFP in April 2009.	☑	☑

B.5 Description of how the emissions reductions achieved as a result of the project activity are greater than those that would be achieved in the absence of the Projet Domestique (evaluation and demonstration of additionality)				
B.5.1 Has a step-by-step assessment been undertaken in accordance with Annex 3 of the 'Arrêté du 2 Mars 2007'?	1, 2, 10	Yes, generally, the assessment approach for additionality is consistent with the methodology.	☑	☑
B.5.2 Step 1: Did the PP summarize the different options that remain available to him following the 'identification of the reference scenario' analysis in B.4?	1, 2, 7	Yes, all options are listed in the PDD.	☑	☑
B.5.3 Step 1: Did the PP showed that the implementation of the project activity (1) would result in a greater reduction of GHG emissions than would be achieved in either of the following alternative scenarios: (2) undertaking of alternative investments that result in a comparable production of goods or a comparable provision of services and (3) continuation of the situation prior to the implementation of the proposed project activity.	1, 2, 7	In the PDD it has been shown that none of the alternatives (2) or (3) result in a higher reduction of N_2O emissions compared to the project activity.	☑	☑

The proponent must choose now either step 2 or step 3. The choice of step 3 does not relieve the proponent of the obligation specified in the second paragraph of article 10 of the 'Arrêté du 2 Mars 2007' (the financing table).				
B.5.4 In case step 2 has been chosen: Did the PP establish that the project activity would not be undertaken because the economic incentives existing at the time of submission of the project dossier are insufficient to guarantee a return on investment equal to that of the alternative investments or, as the case may be, to the standards of the relevant sector?		Not applicable here	☑	☑
B.5.5 In case step 3 has been chosen: Did the PP present a full and documented analysis of all of the following barriers: 1) investment barriers and 2) technological barriers and 3) common practice barriers?	1, 2, 10	Step 3 has been chosen here. The list of barriers presented in the PDD is complete. 1) The investment analysis presented in annex 4 has been done generally according to the requirements of article 10 of arrêté of March 02, 2007. The relation of costs and incomes by ERU issuance has been demonstrated appropriately as required by the arête. **<u>Corrective Action Request No.6.</u>** a) Catalyst quantity in the investment calculation (Annex 4) is not consistent with the information in the PDD.	CAR 6	☑

	13	b) As information has been gathered during on-site Audit, the catalyst in Pardies is not directly allocated to costs to the supplier Yara France SAS, therefore the credit prize has to be set to zero. 2) The information in the PDD about technological barrier is deemed to be plausible. 3) PP has discussed or analysed similar activity in France. No similar project (s) is/are running parallel to this project activity. PP has already concluded the industrial testing of the secondary abatement catalyst. The only secondary abatement installed is for regulatory compliance.		
B.6 Emission Reductions				
B.6.1 Explanation of Methodological Choices				
B.6.1.1 Are the GHG calculations documented in a complete and transparent manner?	1, 2	This equation in section B.6.1 (allocation of ERUs) is not consistent with that indicated in the methodology. This 0.9 factor is missing. The format of the table in section B.6.2 of the PDD is not consistent with that one of the methodology. Thus anyway the format used in the PDD has been chosen according to a PDD template that has been supplied by the French DFP to PP. **<u>Clarification Request #5.</u>** There is a need to clarify why the factor 0.9 that is part of the	CR 5	☑

			equation of the methodology to calculate the ERUs has not been included in the equation.		
B.6.1.2	Are the estimated project emissions transparent, feasible and mathematical correct calculated?	1, 2	The following equation is used to calculate the quantity of N_2O emissions (in Kg) in the course of the monitoring period. **$PEn = VSGn * NCSGn * OHn * 10^{-6}$** The average N_2O emissions per metric ton of 100% concentrated nitric acid (plant-specific emission factor) for the Monitoring Period (PE_n) shall then be calculated as follows: **$EFn = (PEn / NAPn)$ in $kgN_2O/tHNO_3$** The emission reductions obtained in a particular monitoring period will be calculated using the equation: **$ERU = (EF_{BM} – EF_n)/1000 \times NAPn \times GWP_{N2O} \times 0.9$** in tCO_2 e	See CR 5	☑
B.6.1.3	Are the estimated emissions for reference scenario transparent, feasible and mathematical correct calculated?	1, 2	The reference scenario has been defined by the following: According to the methodology “a unique benchmark emissions value will be applied for all nitric acid plants on French territory of 2.5 kgN_2O / $tHNO_3$ in 2009, 2010 and 2011, then of 1.85 kgN_2O / t HNO_3 in 2012.”	☑	☑
B.6.1.4	Has any new national or local regulatory limit value identified that is lower than the benchmark emission factor of the applied methodology? If yes, is this lower limit value applied in the PDD?	1, 2, 32	Taken into account the evidence from the state inspectorat (DRIRE), the enacted N2O limit value is fully consistent with the benchmark emission factor stated in the methodology. **Forward Action Request No.1** There is a need to confirm the N2O limit of the DRIRE given in	FAR 1	☑

			an e-mail by an officially updated operation permit.		
B.6.2	**Data and parameter determined prior to validation**				
B.6.2.1	Will the project result in fewer GHG emissions than the reference scenario?	1, 2	Yes, it is obvious that the project will result in fewer GHG emissions than the reference scenario.	☑	☑
B.6.2.2	Is the form/table required for the indication of projected emission reductions correctly applied?	1, 2, 20	PP has applied format from French PDD.	☑	☑
B.6.3	**Ex-ante calculation of emission reductions**				
B.6.3.1	Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1, 2, 7	see CAR 7	See CAR 7	☑
B.6.3.2	Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1, 2, 7	*See CAR 7*	See CAR 7	☑

B.6.4 Summary of ex-ante estimations of emission reductions				
B.6.4.1 Are the obtained values for estimated project emissions, estimated reference scenario emissions and estimated emissions reductions provided in the table reproducible when applying formulae submitted in the PDD?	1, 2	**Corrective Action Request No.7.** The excel file ERU calculation needs to be revised since not all figures are consistent with the figures stated in the PDD (see also CR1, CR 3, CR5).	CAR 7	☑
B.7 Application of the monitoring methodology and description of monitoring plan				
B.7.1 Measured data and parameters				
B.7.1.2 Is the list of parameters to be collected in order to monitor emissions from the project considered to be complete with regard to the requirements of the applied methodology?	1, 2, 3, 4, 5	The list of parameters is complete according to the applied methodology.	☑	☑
B.7.1.3 Are the following default factors applied appropriately and has the form of the PDD template been applied correctly? a) GWP of N2O according to Kyoto protocol b) Benchmark Emission Factor	1, 2, 3, 4	Yes the two default parameters are applied.	☑	☑
B.7.1.4 Are the following monitoring parameters applied appropriately and has the form of the PDD template been applied correctly?	1, 2, 3, 4	See below for each parameter.	☑	☑

B.7.1.4.1 Parameter Title: NCSGn Average N_2O concentration in the tail gas during project Monitoring Period n.	14	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes For the parameter of N_2O concentration the Dr. Födisch MCA 04 Continuous Emissions N_2O Analyser (part of AMS) will be used according to the PDD.		
B.7.1.4.2 Parameter Title: VSG_n Average Volume flow rate of the tail gas during project Monitoring Period n.	1, 2, 3, 4 14	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes For the parameter of volume flow the Dr. Födisch FMD 99 gas volume flow meter (part of AMS) will be used according to the PDD.	☑	☑

B.7.1.4.3 Parameter Title: PE_n N_2O emissions during the Verification Period	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.4 Parameter Title: OH_n Total Operating hours of Verification Period	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.5 Parameter Title: NAP_n metric tonnes of 100% concentrated Nitric acid produced during the Verification Period.	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑

B.7.1.4.6 Parameter Title: OT_h Oxidation Temperature in the ammonia reactor	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.7 Parameter Title: OP_h Pressure in the ammonia oxidation reactor	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.8 Parameter Title: AFR Ammonia Flow Rate to the ammonia oxidation reactor.	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.9 Parameter Title: AIFR Ammonia to Air Ratio going into the oxidation reactor.	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑

B.7.1.4.10 Parameter Title: TSG Temperature of tail gas	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.11 Parameter Title: PSG Pressure of tail gas	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.7.1.4.12 Parameter Title: EF_n Project emission Factor calculated during the Monitoring Period	1, 2, 3, 4	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑

B.7.1.4.13 Parameter Title: EF_{reg} Emission cap for N_2O from nitric acid production set by the government or local regulation		1, 2, 3, 4	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	☑	☑
B.7.2	**Description of the monitoring plan**				
B.7.2.1	Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1, 2, 3, 4, 7	Yes, the PP is going to apply the European Norm EN14181 (2004) “Stationary source emissions - Quality assurance of automated measuring systems” as a guidance for installing and operating the Automated Monitoring System (AMS) at Yara Pardies for the monitoring of N_2O emissions.	☑	☑
B.7.2.2	Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1, 2, 3, 4, 7	Yes, the PP has correctly justified every option offered by the methodology.	☑	☑
B.7.2.3	Is the operational and management structure clearly described and in compliance with the envisioned situation?	7	The following staff at the nitric acid plant will be responsible for the ongoing operation of the project and for the quality assurance and maintenance of the N_2O monitoring system: As for PDD 1. Philippe Michiels : Plant Manager 2. Patrick Marias : Operation and Production Manager		☑

			3. Bernard Guillou : HESQ Manager (quality assurance) 4. Philip Bault : Maintenance Manager **Forward Action Request No.2:** Roles & responsibilities for the project operation, management and maintenance still have to be officially defined and communicated.	FAR 2	
B.7.2.4	Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2, 7	Operation, maintenance and calibration intervals will be carried out by staff from the instrument department according to the vendor's specifications and under the guidance of internationally relevant environmental standards, in particular EN 14181 (2004). Service will be performed by the supplier of the AMS. Interviews with the maintenance manager Philip Bault were conducted to discuss issues concerning quality procedures training, qualification and maintenance.	☑	☑
B.7.2.5	Does the monitoring plan (MP) provide current good monitoring practice?	1, 2	All monitoring procedures at YARA are also conducted and recorded in accordance with the procedures of the certified management system ISO 9001:2000. As for the PDD, AMS calibration and QA/QC procedures will be implemented in the ISO 9001 procedures. **Forward Action Request No. 3** QAL 1 certificats are expected before the end of the year by Födisch. The QAL 2 certification is expected for October by an accredited institut. Evidence for the N2O analyzer and the flow meter have to be provided to the AIE for the initial verification.	FAR 3	☑

B.7.2.6	Has the monitoring system installed using the European Norm 14181 (2004)?	1, 2	Yes, as outlined in the PDD the EN 14181 will be applied for monitoring.	☑	☑
B.7.2.7	Will the three quality assurance levels been met by the planned Automated Measuring System (AMS) according to the EN14181?	1, 2	Yes, procedures specified in EN14181 for QAL1, QAL2 and QAL3 Quality Assurance Level will been adapted at the YARA Pardies nitric acid plant. See FAR 3	See FAR3	☑
B.7.2.8	Are the specific performance characteristics of the monitoring system chosen by the project listed in the PDD?	1, 2	Yes. The specific performance characteristics of the monitoring system chosen by the project are listed in the PDD. This includes the trip point parameters.	☑	☑
B.7.2.9	Is information on the margins of errors and the cumulative error for the complete measurement system provided in the PDD?	1, 2	Yes, the uncertainty has been taken into account in compliance with the methodology. For each emission source, the permitted overall uncertainty of the average hourly annual emissions must be less than 7.5%. The next level, and the maximum allowed, is 10%, which can only be applied if it can be proven to the satisfaction of the competent authority that the application of the 7.5% level is technically impossible to achieve or that it would entail excessive costs.	☑	☑
B.7.2.10	Is the inclusion of external accredited services providers for calibration and function tests foreseen in the planning of the project?	1, 2	Yes, it is foreseen according to the PDD.	☑	☑
B.7.2.11	Are the requirements on the treatment of downtime of the AMS clearly	1, 2	Yes, during downtime of the AMS or other interruption of measurement during part of one hour, the hourly average will be cal-	☑	☑

	reflected in the envisioned calculation routines, e.g. malfunction of abatement system, trip point values?		culated based on the remaining values for the rest of the hour in question. If these remaining values account for less than 50% of the hourly data for one or more parameters, then this hour will be eliminated from the calculation. Each time it is impossible to calculate an hour of valid data, substitute values will be defined in accordance with the procedures described in the PDD. Hence, the approach to take into account the downtime requirements of the methodology is deemed to be appropriate.		
B.7.2.12	If applicable: Does Annex 3 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1, 2	Yes. Annex 3 provides a brief Background summary on EN14181.	☑	☑
B.8 Date of finalization of application of the reference scenario and monitoring methodology and the name of the person/entity responsible					
B.8.1	Is there any indication of a date when the reference scenario and monitoring methodology was determined?	1, 2	Yes, reference scenario and monitoring methodology have been established with the issuance of the methodology.	☑	☑
B.8.2	Is this consistent with the time line of the PDD history?	1, 2	Yes, see time line in A.2.1.2.	☑	☑
B.8.3	Is the information on the person(s) / entity (ies) responsible for the application of the reference scenario and monitoring methodology provided consistent with the actual situation?	1, 2	Yes, the name and entity of the person who is responsible for the application of the reference scenario and monitoring methodology is indicated in the PDD.	☑	☑

C. Duration of the project activity / crediting period				
C.1. Duration of the Starting date of the project:				
C.1.1. Is the project's starting date of the project activity clearly defined and reasonable?	1, 2, 7	Yes. The starting date is clearly defined in the PDD. See also time line in section A.2.1.2 of the PDD	☑	☑
C.1.2 Is the expected operational lifetime of the project activity clearly defined and reasonable?	1, 2	Yes, the operational lifetime of the project itself is clearly defined in the PDD. According to YARA Pardies the lifetime of the plant is at least 10 years.	☑	☑
C.2. Crediting period:				
C.2.1. Is the date of the start of the assumed crediting period clearly defined and reasonable?	1, 2	The start of the crediting period depends on the approval of the project by the French DFP. This is not known at the commencement of the validation process. LoA of France is expected mid 2010. The final determination report will not be issued prior to the submission of the LoA.	☑	☑
C.2.2. Is the duration of the crediting period clearly defined and reasonable?	1, 2	The duration of the crediting period is clearly stated in the PDD.	☑	☑
D. Environmental impacts				
D.1. Documentation concerning environmental impact assessment				
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1, 2, 7	The project activity has got no known negative environmental impacts but rather a positive environmental effect. It leads to the reduction of N_2O emissions – a GHG with a high GWP.	☑	☑

D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1, 2, 7	**Clarification Request #6.** Evidence from MEEDDM has to be provided to AIE that EIA is not required for this kind of project.	CR 6	☑
D.1.3.	Will the project create any adverse environmental effects?	1, 2	The project activity has got no known negative environmental impacts.	☑	☑
D.1.4.	Were transboundary environmental impacts identified in the analysis?	1, 2	The project activity is located solely in French territory. Therefore no trans-boundary effects are expected.	☑	☑
D.2 If the impact on the environment is considered significant by the project participants or by the French administration, please provide conclusions and all reference documentation from the Environmental Impact Assessment in accordance with the procedures required by the French administration					
D.2.1	Have the identified environmental impacts been addressed in the project design sufficiently?		NA	☑	☑
D.2.2	Does the project comply with environmental legislation in the host country?		NA	☑	☑
E. Local Stakeholder Consultation					
E.1.1.	Have relevant stakeholders been consulted?	1,2, 7	**Clarification Request #7.** As information has been gathered during the Audit obviously the DFP did not require conducting local stakeholder consultation. PP has to provide proofs to substantiate the statement “As the JI project does not have any relevance for local air, water or soil emissions, a local stakeholder consultation is not considered	CR 7	☑

			necessary."		
E.1.2.	Have appropriate media been used to invite comments by local stakeholders?	1, 2	See CR 7	See CR 7	☑
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?	1, 2	See CR 7	See CR 7	☑
E.1.4.	Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 2	See CR 7	See CR 7	☑
F. Annexes 1 – 3					
F.1. Annex 1: Contact details of the project participants					
F.1.1.	Is the information provided consistent with the one given under section A.3?	1, 2	See CAR 1	See CAR1	☑
F.1.2.	Is the information on all private participants and directly involved Parties presented?	1, 2	See CAR 1	See CAR1	☑
F.2. Annex 2: Information concerning the application of the reference scenario methodology					
F.2.1.	If additional background information on reference scenario data is provided: Is this information consistent with data presented by other sections of the PDD?		NA	☑	☑
F.2.2.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?		NA	☑	☑

F.2.3.	Does the additional information substantiate / support statements given in other sections of the PDD?		NA	☑	☑
F.3. Annex 3: Information concerning the monitoring plan					
F.3.1.	If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1, 2	Annex 3 provides a brief Background summary on EN14181. This information is consistent with those presented in other section of the PDD.	☑	☑
F.3.2	Is the information provided verifiable? Has sufficient evidence been provided to the assessment team on-site?	1, 2	Yes	☑	☑
F.3.3	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1, 2	Yes	☑	☑
F.4. Annex 4: Project costs and revenues					
F.3.2.	Is the information about projects costs and revenues consistent with data presented in other sections of the PDD?	1, 2	See CAR 6	See CAR 6	☑

Industrie Service

Table 2. Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by the AIE's determination team	Ref. to table 1	Summary of project owner response(s)	AIE's conclusion
CR 1: a) A confirmation from MEEDDM that the available LoE for Ambès and Montoir is valid as well for Pardies needs to be provided to the AIE. b) The figures for the capacity of the HNO_3 production and the CO_2 emissions indicated in the PDD are not consistent with the capacity in the draft operation permit. c) The yearly capacity of HNO_3 in the PDD is not consistent with that one in the ERU excel file. d) As information has been gathered during the on-site audit and is available by the process manual, there is a need to explain in the PDD in more detail the different manufacturing processes for the different types of HNO_3 produced and their interactions (see also CAR5a).	A.2.1.1	a) An unofficial LoE was provided for Ambes and Montoir at the project proponents' specific request, since these projects were due to start in April, at a point when the discussions with the MEEDDM regarding the methodology and a suitable benchmark value were still ongoing. Yara did not want to risk being penalised for an early project start and so the MEEDDM agreed to make an exception in their case and issue a LoE. However, the MEEDDM has made clear that they do not intend to issue LoEs to projects starting after the approval of the methodology (July), unless the project is particularly unusual in some way and the proponents' make a specific LoE request. The MEEDDM says that a LoA will be sufficient for all standard N2O reduction projects that comply with the methodology. b) The HNO3 capacity figure has now been corrected in section A.2 of the PDD, in accordance with the draft operational permit. c) The yearly HNO3 capacity in section A.2 of the PDD has now been changed to reflect the real figure and is now consistent with that shown in the ERU calculation Excel file. The figure in the excel sheet was also incorrect and has now been changed accordingly. d) Some more detail on the production process description has now been added to section A.4.2 to explain that HNO3 of three different concentrations is produced at the plant.	a) The project owner response is consistent with the "unofficial" LoE (IRL 11) issued for Ambes and Montoir. In this letter, it is clearly written, that this LoE was issued, because Ambes and Montoir needed to install the catalyst prior to the approval of the methodology and wanted to ensure that the scenario reference considered their early efforts. As the methodology has been approved by MEEDDM in july prior to the additive catalyst installation in Pardies (the plant started operation

			with the full batches of catalyst on the 20th August). Thus a LoA is sufficient for Pardies. b) The HNO3 capacity figure is now consistent with the figure in the draft operation permit. c) Annual productions of HNO3 and Plant CO2e per year (pre-cat) without N2O abatement technology have been corrected and are consistent in the ERU excel file and the PDD. d) The gas flow connections between the three types of produced gas (with different concentrations of HNO3) are clearly described in section A.4.2. Furthermore a flow chart for the nitric acid plant has been added in the PDD. This chart and the

			description in the PDD are consistent. This chart was explained and checked on-site during the audit.
CAR 1: The form for indicating the French project participant is not consistent with Annex 1.	A.3.1.1	The details in Annex 1 have now been corrected to be consistent with the table in section A.3.	The form has been now correctly applied.
CAR 2: a) The GPS coordinates of a reference point of the project activity, e.g. plant absorption tower or tail gas stack, need to be indicated in the PDD. b) The description of the map is not consistent with the map itself.	A.4.1.1	a) The coordinates of the ammonia burners and tail gas stacks are now indicated under the map (figure 1, section A.4.1.4) b) The description of the map in section A.4.1.4 is now consistent with the map itself.	The GPS coordinates of the ammonia burners and tail gas are indicated in the PDD and both elements are marked on the map in the PDD. This is accurate.
CAR 3: The statement in the PDD regarding the quantity of catalyst needed to respect the benchmark factor is not clear enough and has to be revised; additionally consistency of the figures with the financial investment excel file has to be provided.	A.4.1.2	The quantity of catalyst employed during the project activity in comparison with the quantity needed for compliance with the legal requirements has now been described in more detail in section A.4.2. The financial investment excel sheets in Annex 4 have also been adjusted to reflect the true costs of project implementation.	The description in the PDD of the quantity of catalyst installed and the purpose is clearly stated and consistent with the information received during the audit on-site. In January 2009 the two burners were half filled with new catalyst to comply with the upcoming Ar-

			rêté Préfectoral planned at the end of 2009. In mid August 2009, the ammonia oxidation reactors were filled to their maximum capacity with a total extra 1,600kg of catalyst (800kg per burner, which was sent from the Ambès plant to achieve the maximum emissions reductions possible. The quantity of catalyst used in the financial investment excel file (1600Kg) is consistent with the value in the PDD.
CR 2: If applicable, a service contract between Yara and the supplier of the AMS (Dr. Födisch), incl. training and service agreements, has to be provided to the AIE.	A.4.2.8	The bottom of page 7 of the attached contract between Foedisch and Yara makes reference to the training. Please see the attached AMS training sheet from Foedisch to which this contract refers.	In the Quotation from Foedisch to Yara (IRL 34), the training for AMS (Automated Monitoring System) is quoted. In the AMS training sheet provided (IRL 35), the key elements of the training for the gas analyzer are listed and the list of participant is available. This is sufficient.

CR 3: The figures in table 1 of the PDD are not consistent with the ones in the ERU calculation excel file.	A.4.3.2	All figures in the ERU calculation tables have now been changed to reflect the new budgeted production figures. All tables have been replaced accordingly.	The estimations of annual emission reductions in tonnes of CO2eq is now in PDD (table 1) are now in consistence with the figures in the ERU excel sheet.
CAR 4: The statement in the PDD that the methodology is not yet approved needs to be revised.	B.2.1	This statement has been revised accordingly in section B.2	It is now stated in the PDD, that the methodology was approved in July 2009. This is correct.
CAR 5: a) An appropriate project scheme visualizing the different HNO3 manufacturing processes and their interference within project boundary is still missing in the PDD. b) In order to comply with the form of the methodology, PP has to include in the table of chapter B.3 of the PDD for the reference scenario the appropriate applicability answer for N_2O.	B.3.1	a) The flow sheet has now been included in the PDD under section B.3, with the most important parts highlighted. b) The table in chapter B.3 has now been amended in accordance with the requirements of the methodology	A detailed chart for the nitric acid plant with all gas flows and especially the gas flow connections between the three types of produced gas (with different concentrations of HNO3) is now available in the PDD. The main elements of the process (turbine, Selective Catalyst reduction, Ammonia Oxidation Reactor, stock and the production lines for the different HNO3) are annotated for more transparency. This is appropri-

			ate.
CR 4: It should be taken into account that as a consequence of new NOX regulations over the course of the crediting period of the proposed project activity the most conservative reference scenario can be changed and needs to be of re-assessed. In such a case the additionality of the project must be re-determined. It has to be clarified if the conclusion box at the end of chapter B.4 ensures the monitoring of this legal parameter.	B.4.2	A clarifying sentence has been added to the conclusion box at the end of chapter B.4 to explain that the NOx and N2O legislative requirements will be monitored throughout the crediting period.	The PDD states that the procedure concerning the definition of a baseline scenario will be repeated, if any change in the HNO3 and NOx legislation take place that would affect the baseline scenario. It is also stated that the legal requirements will be continuously monitored. This is appropriate.
CAR 6: a) Catalyst quantity in the investment calculation (Annex 4) is not consistent with the information in the PDD. b) As information has been gathered during on-site Audit, the catalyst in Pardies is not directly allocated to costs to the supplier Yara France SAS, therefore the credit prize has to be set to zero.	B.5.5	a) The catalyst quantity in the investment calculation has now been corrected in annex 4 of the PDD. Please find attached the new calculation sheet. b) The costs for actual purchase of the catalyst have now been amended to zero and only costs for delivery, handling and installation of the catalyst have been attributed to the project.	The catalyst quantity in the investment calculation is now consistent with the information in the PDD.
CR 5: There is a need to clarify why the factor 0.9 that is part of the equation of the methodolo-	B.6.1.1	The ERU calculation factor of 90% has now been added to the calculation under ‘Allocation of ERUs’ in section B.6.1.	The factor 0.9 that is part of the equation of the methodology to

gy to calculate the ERUs has not been included in the equation.			calculate the ERUs has now been included in the equation.
FAR 1: There is a need to confirm the N2O limit of the DRIRE given in an e-mail by an officially updated operation permit.	B.6.1.4	The final N2O limit confirmation is expected in 2010. This will be forwarded to the AIE as soon as it has been issued to the plant and can be cross-checked at the first verification.	The outstanding final Arrêté Préfectorale has to be sent to the verifying AIE as soon as it has been issued. N2O emission factor that is inconsistent with the value in the draft Arrêté Préfectorale from May 2010 can cause a re-determination of the project, if applicable.
CAR 7: The excel file ERU calculation needs to be revised since not all figures are consistent with the figures stated in the PDD (see also CR1, CR 3, CR5).	B.6.1.4	The ERU calculation tables have all been updated with the corrected budgeted production figures and also now take into account the 10% government ERU deduction rule.	The factor 0.9 has been correctly applied in the ERU calculation Excel sheet. All figures of the ERU calculation excel sheet are consistent with the figures in the PDD.
FAR 2: Roles & responsibilities for the project operation, management and maintenance still have to be officially defined and communicated.	B.7.2.3	The plant will define a more detailed management and responsibilities chart for the JI project. This will be made available for inspection during the first verification.	This issue is closed, the management and responsibility chart needs to be checked by the verifier during the initial verification.
FAR 3:	B.7.2.5		Closed

QAL 1 certificat is expected before the end of the year by Födisch. The QAL 2 certification is expected for October by an accredited institut. Evidence for the N2O analyzer and the flow meter have to be provided to the AIE for the initial verification.		The QAL2 certificate will be provided to the AIE as soon as the QAL2 test has taken place at the end of October. The QAL1 certificate will be forwarded to the AIE as soon as it becomes available.	The QAL certificate for each line is available. The QAL1 certificates for each N2O analyser and flow meter have to be checked latest during the initial verification.
CR 6: Evidence from MEEDDM has to be provided to AIE that EIA is not required for this kind of project	D.1.2	Awaiting response from MEEDDM on this issue.	The MEEDDM has been contacted to clarify this issue, but an official answer was not available. Anyway, the AIE concludes that according to the available information as well as experience with similar projects in France, a separate EIA is not mandatory for this N2O abatement project.
CR 7: As information has been gathered during the Audit obviously the DFP did not require conducting local stakeholder consultation. PP has to provide proofs to substantiate the statement "As the JI project does not have any relevance for local air, water or soil emissions, a local stakeholder consultation is not considered necessary."	E.1.1	The email from the MEEDDM dated 22.07.2009 has been forwarded to the AIE. This email confirms that *"il n'est pas nécessaire de mener une consultation des parties prenantes",* as long as the public authorities are aware of the project investments taking place at the site. This latter requirement is explained in section E of the PDD.	According to the MEEDDM, there is no need to conduct local stakeholder consultation (email from the MEEDDM dated 22.07.2009). This proof substantiates this statement.

Second loop after review of AIE Certification Body:			
Additional Corrective Action Request #1 The calculation in table 1,table 7 and table 8 of the PDD is not correct and not up to date. The corresponding excel file need to be updated and submitted to AIE.	A.2	The calculations in all tables of the PDD are now correct and up to date. The corresponding excel file has also been updated and sent to Tuev Sued on the 25th May.	Closed AIE confirmed the correct revision of the PDD (IRL-No. 35) and the ERU excel file calculation (IRL-No. 36).
Additional Clarification Request #1 a) Please clarify if the tail gas stack stated in clause 1 of chapter B.3 of the PDD comprises both burner lines or if one stack for each line is implemented. Regarding this issue, the information in the design flow chart is not consistent with the information in the text above, please clarify. b) In general this flow chart is rather too detailed, at the same time it is not easy to identify the most important parts like ammonia&air input, HNO3 output, in which process points the two existing lines are going into one single one, sampling points of AMS etc.; A simplified process scheme is needed which however shows all main components of the plant and gives a complete and transparent overview of the process. .	B.3	a) It has now been clarified in section B.3 that there are two tail gas stacks. Please see the description in section A.4.2 (to which some additional information has been added) for more details on the complete production process. b) Please see the additional, very simplified flow chart that has now been added in section B.3 (Illustration 2), which shows more clearly all the main parts of the process equipment that are relevant in the context of the JI project.	Closed

Additional Corrective Action Request #2 Step 2 of the PDD: a) In the 1th sentence of 6th clause it has to be clarified if 1 or 2 units are applicable. b) The absorption towers in the same clause have to be in plural.	B.4	a) It has now been clarified in Step 2 that two SCR units are installed at the plant. b) Reference is now made in the same clause to the absorption towers, plural.	Closed
Additional Corrective Action Request #3 In the before last clause of the chapter "investment barriers" of the PDD the statement about the "immediate future" has to be updated.	B.4	This statement has now been updated, since the regulatory limit is expected to be imposed sometime in 2010.	Closed The indication of updated timeline in the revised PDD has been checked by the AIE.
Additional Corrective Action Request #4 a) In chapter B.6.1 of the PDD under the topic "Estimation of Verification Period specific project emissions" (clause starting with "Over…"), the measurement of the nitric acid production of the plant has to be discussed in the PDD in more detail since due to plant design 2 HNO3 outputs with different HNO3 concentration do exist. b) The statement in Footnote 30 is not sufficiently clear enough; give clear reasons for the statement. This is applicable as well for the exactly same statement on page 27.	B.6	a) More detail has now been added to chapter B.6.1 of the PDD, under 'Measurement of NAP', to describe how the nitric acid production output of the plant is measured. Additional detail has also been included under P.5 in table 10 of section B.7.1. b) Footnote 30 has now been removed, since the project participants agree that it is not sufficiently clear and is not actually necessary. The same applies to the same statement following the equation definitions under 'Allocation of ERUs' in section B.6.1.	Closed
Additional Clarification Request #2	B.6	This is deemed to be a more conservative approach, since the N2O concentration readings will be much lower during times	Closed

Please justify why the procedure described in the 2. Clause under the topic "Measurement during standard plant operation" starting with "Consequently…" is deemed to be conservative approach.		when the plant is considered to be out of operation. Including such data in the calculations would unrealistically decrease the average project emissions factor for that verification period, leading to more ERUs being awarded.	
Additional Corrective Action Request #5 a) The source of the parameters VSGn, NCSGn and NAPn used for ERU calculation under topic "Calculation of the EFn-value" has to be added in the PDD since these parameters are not listed in the tables in B.6.2. This is applicable as well for the tables in chapter B.7.1 b) The parameter AFR which is considered to be the main trip value at the plant needs to be added in B.6.2.	B.6 and B.7	a)_ i - An explanation of the sources of the parameters VSGn, NCSGn and NAPn is already given under 'definition' following the equations in section 'Calculation of the EFn value' in chapter B.6.1. The sources of these parameters are also already explained in 'Estimation of verification period specific project emissions', also in chapter B.6.1. ii - Parameters listed in the table in B.6.2 are only those that are established prior to the Determination. This is not applicable to NCSG, VSG and NAP, since these are directly measured throughout the project activity and cannot be established beforehand. iii - Again, the sources of these parameters are already very clearly defined in table 10 in B.7.1. b) The two main trip values are the ammonia oxidation temperature (OT) and the ammonia to air flow ratio (AIFR), not the ammonia flow rate (AFR). The AFR is not a trip value at all, and a maximum value cannot be defined.	Closed
Additional Corrective Action Request #6 a) For parameter "NAPn" under B.7.1 the source of data has to be described in more detail taking into account 2 HNO3 outputs with different HNO3	B.7	a) More detail is now given on the measurement of the parameter 'NAPn' under P.5 of table 10 in chapter B.7.1. b) Clarification is now provided on how OT will be determined under P.6 in table 10 of section B.7.1. c) In accordance with the methodology, it is only necessary to	Closed

concentrations. b) Parameter OT under B.7.1: There are 2 AORs at the plant, please clarify how this fact is considered by determination of this parameter. c) Parameter OP is missing in table B.7.1 d) Parameters AFR and AIFR: there are 2 AORs at the plant, please clarify how this fact is considered by determination of this parameter. e) Parameter EFn: it has to be clarified how the total mass of N2O emissions will be calculated taking into account 2 NCSG and 2VSG sources from 2 AMSs installed.		measure OP if it constitutes a trip point parameter of the plant. Since this is not the case at Pardies, it is not necessary to monitor OP. d) Clarification is now provided on how AFR and AIFR will be determined (see parameters 7 & 8 in table 10 of section B.7.1). e) In section B.6.1 under 'Calculation of the EFn value', it has now been described in more detail how the total mass of N2O emissions will be calculated, taking into account NCSG and VSG readings from two sources. Adjustments have also been made accordingly under parameters 3, 4 & 11 in table 10 of section B.7.1.	
Additional Corrective Action Request #7 The description of the AMS on page 38 and 39 of the PDD as well as statement in C.1.1 and C.2.1 has to be updated in terms of implementation and QAL 2 audit timeline.	B.7 and C	The description of the AMS in section B.7.1 (points 1&3 and QAL 1&2) has now been updated to reflect the actual situation. The statements in C.1.1 and C.2.1 have also been updated with the most current information.	Closed The indication of updated timeline in the revised PDD has been checked by the AIE.

Table 3. Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and corrective action requests by the AIE's determination team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-

Annex 2: Information Reference List

Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in JI Context)
1	24/07/2009	PDD "Yara Pardies N_2O abatement project", version 01	n-serve	PDD for GSP
2	06/11/2009	PDD "Yara Pardies N_2O abatement project", Version 03	n-serve	PDD updated
3	24/07/2009	Projet Domestique Methodology: "Catalytic reduction of N_2O at nitric acid plants	DFP France	French version
4	No date	Projet Domestique Methodology: "Catalytic reduction of N_2O at nitric acid plants	DFP France	English version
5	24/07/2009	Approval of the methodology "*Réduction Catalytique du N2O dans des usines d'acide nitrique"* by e-mail of MEEDDM to n-serve	MEEDDM = French DFP	Official webpage: http://www.ecologie.gouv.fr/Methodologies-de-projets.html
6	10/09/2009	Participant list of on-site interviews	TÜV SÜD	
7	10/09/2009 and 11/09/2009	On-site interviews conducted by TÜV SÜD. **Validation Team:** Robert Mitterwallner TÜV SÜD Industrie Service GmbH (GHG Auditor) **Interviewed Persions:** Rebecca Cardani Strange n-serve (Project Manager) Patrick Marias Yara Pardies (in charge of plant operation) Bernard Guillou Yara Pardies (HESQL manager) Philippe Bault Yara Pardies (in charge of maintenance) Philippe Michiels Yara Pardies (plant manager)	TÜV SÜD	
8	06/11/2009	Excel Sheet Calculation for ERUs	N-serve	
9	25/01/1999	Arrêté Préfectorale, Nitric Acid production in Pardies (draft)	Préfecture des Pyrénées Atlantiques, Direction de l'administration	

Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in JI Context)
			générale, Bureaux de la protection de la nature et de l'environnement.	
10	02/03/2007	J.O No. 56, texte No. 61 "Décrets, arrêtés, circulaires, textes généraux (French linking directive related to JI and CDM projects)	Ministère de l'écologie et du développement durable	Incl. Reduction factor for climate projects in Artivle 15 and Additionality requirements in Annex 3
11	03/07/2009	Letter of Endorsement – Confirmation for other Yara projects of Ambes and Montoir	DFP France	
12	11/07/2008	Evidence of JI consideration (e-mail from head of Yara)	Yara France	
13	12/03/2009 29/07/2009	E-mail from Yara Pardies to Yara group to provide 760 kg catalyst each line; E-mail from Yara Ambès to Yara Pardies to provide 2150 kg catalyst (grosse)	Yara France	
14	3/08/2009	Purchase Order of monitoring equipment delivery from Dr. Födisch Umwelttechnik AG (4500951145 and 4500951147)	Yara group	Incl. installation work and tests for 63577€
15	2/02/1998	Arrêté Ministériel relative aux prélèvement et la consommation d'eau ainsi qu'aux émissions de toute nature des installations classés pour la protection de l'environnement (avec 7 kg N2O/tHNO3)	Ministère de l'écologie et du développement durable	footnote 6 of PDD
16	No date	Excel file "Pardies N2O data 2002", Yara Pardies internal data sets	n-serve	
17	06/11/2009	Excel file of financial table	n-serve	Part of Annex 4 of PDD
18	August 2007	*Integrated Pollution Prevention and Control Reference Document on Best Available Techniques (IPPC BREF) for the manufacture of*	European Commission	

Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in JI Context)
		Large Volume Inorganic Chemicals – Ammonia, Acids and Fertilizers		
20	24/04/2009	PDD template of French DFP	MEEDDM = French DFP	
21	10/04/2009	MEEDDM UNIFA; meeting with subject: "Projets Domestiques"	Union des Industries de la Fertilisation (UNIFA)	Power point presentation
22	11/09/2009	Detailled information about AMS engineering and install costs of totally 330 k€	Yara intranet print out	
23	March 2009	PIN	n-serve /Yara	
24	11/09/2009	2 Printscreen monitoring HNO3 production control room		
25	08/01/2002	Flow sheet Nitrique	Yara Pardies	
26	No date	Flow sheet ANC Acid Nitriqe Concentré (Concentrated HNO3)	Yara Pardies	
27	14/09/2009	Legal requirements list (Veille réglementaire) for the plant of Pardies	Synergi Solutions AS	
28	No date	Purchase Used gauzes Pardies L1, Run 36	Yara Pardies	
29	No date	Monthly production of HNO3 among other products on the Pardies plant	Yara Pardies	Excel File
30	17/09/2007 8/10/2008	Process Manual HNO3 production PRD 10056 (6 chapters)	Yara Pardies	
31	No date	"Welcome to Yara", power point presentation	Yara Pardies	
32	6/05/2009	E-mail from state inspectorat (DRIRE) to Yara regarding N2O limit value	DRIRE	
33	26/05/2009	E-mail from Yara to state inspectorat (DRIRE) regarding measured NOx emissions	Yara	
34	04/05/2010	Arrêté Préfectorale, Nitric Acid production in Pardies (draft)	Préfecture des	

Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in JI Context)
			Pyrénées Atlantiques, Direction de l'administration générale, Bureaux de la protection de la nature et de l'environnement.	
35	24/05/2010	PDD "Yara Pardies N_2O abatement project", Version 03	n-serve	PDD final
36	24/05/2010	Excel Sheet Calculation for ERUs	N-serve	Updated version
37	24/05/2010	Excel file of financial table	n-serve	Updated part of Annex 4 of PDD
38	09/04/2010	QAL 2 report for line 1 of Yara Pardies N_2O abatement project	Müller-BBM	Including excel calculation for March and April 2010
39	09/04/2010	QAL 2 report for line 2 of Yara Pardies N_2O abatement project	Müller-BBM	Including excel calculation for March and April 2010