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# PRELIMINARY DETERMINATION REPORT

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MITSUBISHI CORPORATION

N<sub>2</sub>O ABATEMENT PROJECT AT  
NITRIC ACID PLANT OF ZAT,  
POLAND

**PROJECT No.** JI.VAL0108

**DATE:**14/03/2008

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Approved by:  Siddharth Yadav	Organisational unit:  SGS Climate Change Programme
Client: Mitsubishi Corporation	Client ref.:

## Summary:

This report presents the findings of the determination of the “N<sub>2</sub>O abatement project at nitric acid plant of ZAT, Poland” against the requirements of Decisions 16 and 17 CP7 of the Marrakech Accords, Article 6 of the Kyoto protocol, CDM methodology AM0034 version 2 and Tool for the demonstration and assessment of additionally (Version 3).

In accordance with decisions from EB31, SGS and Mitsubishi Corporation agreed that review of determination of normal operating conditions and baseline emissions calculation are not covered in the scope of determination, therefore, below parameters defined in AM0034 are not validated in this determination process: OT, OP, AFR, AIFR, VSG, NCSG, NAP, UNC, CL and baseline catalyst composition. Thus, if the monitoring system has been certified to meet the prevailing best industry standard (eg. EN14181) is also forwarded to the assessment during verification process.

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

The report and the annexed validation describes a total of 11 findings which include:

- 3 Corrective Action Requests (CAR);
- 5 New Information Requests (NIR); and
- 3 Observations.

One NIR and one CAR remain outstanding. The NIR and CAR are based on the findings that no documented approval is available from the involved host Party. On the basis of this finding, this report provides the justification for the recommendation of a **Qualified Determination Opinion**.

Report No.: JI.Val0108	Subject Group: JI Determination	
Report title: N <sub>2</sub> O abatement project at nitric acid plant of ZAT, Poland		
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## Indexing terms

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**Abbreviations**

AMS	Automated Monitoring System
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
COP/MOP	Conference of Parties / Meeting of Parties
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board of the clean development mechanism
EIA	Environmental Impact Assessment
GHG	Greenhouse gas
IETA	International Emission Trading Association
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MP	Monitoring Plan
NGO	Non Governmental Organization
NIR	New Information Request
NSCR	Non-Selective Catalytic Reduction
PDD	Project Design Document
PP	Project Participant
SCR	Selective Catalytic Reduction
UNFCCC	United Nations Framework Convention on Climate Change

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## 1 INTRODUCTION

### 1.1 Objective

Mitsubishi Corporation has commissioned SGS to make a determination of the project: “N<sub>2</sub>O abatement project at nitric acid plant of ZAT, Poland” with regard to the relevant requirements for JI project activities. The purpose of a determination is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Determination is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reduction units (ERUs). UNFCCC 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 determination scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the determination, focusing on the identification of significant risks for project implementation and the generation of ERUs.

In accordance with decisions from EB31, SGS and Mitsubishi Corporation agreed that review of determination of normal operating conditions and baseline emissions is not covered in the scope of determination.

The determination is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

### 1.3 GHG Project Description

The purpose of this project is to reduce the current levels of N<sub>2</sub>O emissions at the Zakłady Azotowe w Tarnowie-Mościcach S.A. (hereinafter “ZAT”) during the production of nitric acid. The project activity involves the installation of a secondary catalyst to decompose N<sub>2</sub>O inside the reactor once it is formed.

### 1.4 The names and roles of the determination team members

<i>Name</i>	<i>Role</i>
Elton Chen Wu	Team Leader
Bozena Huryn	Local Assessor

## 2 METHODOLOGY

The determination consists of the following three phases:

- I a desk review of the project design documentation
- II follow-up interviews with project stakeholders
- III the resolution of outstanding issues and the issuance of the final determination report and opinion.

### 2.1 Review of PDD and additional documentation

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

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

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

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

<b>Checklist Question</b>	<b>Means of verification (MoV)</b>	<b>Comment</b>	<b>Draft and/or Final Conclusion</b>
<i>The various requirements are linked to checklist questions the project should meet.</i>	<i>Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.</i>	<i>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.</i>	<i>This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>New Information Request (NIR)</b> is used when the validation team has identified a need for further clarification.</i>

The completed validation protocol for this project is attached as Annex 1 to this report.

### 2.2 Site visit and follow-up interviews with project stakeholders

In general, a site visit might be required to verify assumptions in the baseline. Sometimes additional information is required to complete the determination, which may be obtained through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by

the local SGS affiliate. In case of this project, a site visit and interviews have been conducted and the results are summarized in Annex 3 to this report.

### 2.3 Report of findings and use of type of findings

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

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

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:

- I. mistakes have been made with a direct influence on project results;
- II. validation protocol requirements have not been met; or
- III. there is a risk that the project would not be accepted as a JI project or that emission reductions will not be verified.

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

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

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex 2). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

## 3 DETERMINATION FINDINGS

### 3.1 Participation requirements

Currently no information is available if the Host Party involved in the project activity (Poland) is in compliance with its obligations under Articles 5 & 7 (Observation 1) although Poland has ratified the Kyoto Protocol. This will need to be confirmed at a later stage.

JI Modalities require that Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects. The national guidelines and procedures for the approval of JI project in Poland are not available as of 5 December 2007 when the determination protocol was being completed, so NIR 1 was raised. The national guidelines and procedures have not been completed and official announcement has not been made widely available on UNFCCC website ([http://ji.unfccc.int/JI\\_Parties/Parties/index.html#Poland](http://ji.unfccc.int/JI_Parties/Parties/index.html#Poland)) till 17 March 2008 when this report is produced, so this NIR 1 remains open.

No evidence was provided that the project has the approval of the Parties involved and CAR 1 was raised. The Letter of Approval issued by Japanese Government dated December 27, 2007 was submitted to SGS. The Letter of Approval of the Polish Government is still not available at the time of preparing this determination report although a Letter of Initial Support was received.

As per decision of the JISC “at least one written project approval by a Party involved other than the host Party(ies) has to be provided to the accredited independent entity (AIE), additionally to that (those) of the host Party(ies), and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication”, therefore CAR1 remains and the official Letter of Approval from the Polish Government has to be provided before the project can be recognized as JI project.

Inability to close out NIR1 and CAR1 is reflected in the status of this report (Qualified Opinion).

### 3.2 Baseline selection and additionality

Approved CDM methodology AM0034 version 2 refers to the approach detailed in AM0028 Version 04.1 is used to determine the baseline. “Tool for the demonstration and assessment of additionality” Version 03 is used as a guideline to demonstrate additionality of the project activity.

Step-wise approach is correctly followed as per AM0028 Version 04.1, through the first 4 steps, it is concluded that the continuation of the current situation (or the installation of a new Selective Catalytic Reduction (SCR) NO<sub>x</sub> reduction unit in case that the NO<sub>x</sub> regulation in Poland would be strengthened in the future and ZAT could not meet it) is the baseline scenario. And further in the 5<sup>th</sup> Step, if legal regulations on N<sub>2</sub>O emissions are introduced or changed during the crediting period, the baseline emissions will have to be adjusted at the time the legislation is legally implemented.

It was checked that the installation of N<sub>2</sub>O abatement technology currently is not an industrial practice in Poland. Proof for this claim was derived from the CDM and JI projects at nitric acid plants around the world currently being determined / validated. In Poland, none of these plants face any regulatory constraints on N<sub>2</sub>O emissions.

In the European Union (EU) there are a number of plants that have been operating with N<sub>2</sub>O abatement catalysts for some time (up to three years) but all of these were either driven by CO<sub>2</sub>-taxation (France and Norway) or trial operations within research & development procedures (namely Yara and BASF). Some other EU operators are considering the installation of N<sub>2</sub>O abatement catalysts\* in preparation for the mandatory N<sub>2</sub>O emissions limits that will be imposed by the latest IPPC BAT recommendations and a possible inclusion of N<sub>2</sub>O in the EU Emissions Trading System<sup>†</sup>.

### 3.3 Application of Baseline methodology and calculation of baseline

The project is applying approved CDM methodology AM0034 Version 2 which contains several applicability criteria. The proposed project meets all the criteria, verified through site assessment which is summarized in annex 3 of this project .

It was confirmed by site visit that the plant started production in 1992. According to the document (TP/AB/338/2004) dated 11/10/2004, the designed and approved annual capacity was 276,725 t/year for 100% HNO<sub>3</sub> base (841.11 tHNO<sub>3</sub>/day x 329 days/year). In version 1 of

\*Proposed BASF JI project in Germany to be viewed at

[http://www.netinform.de/KE/Wegweiser/Guide22.aspx?ID=4530&Ebene1\\_ID=50&Ebene2\\_ID=1402&mode=5](http://www.netinform.de/KE/Wegweiser/Guide22.aspx?ID=4530&Ebene1_ID=50&Ebene2_ID=1402&mode=5)

† Responding to Article 30 of the EU ETS Directive 2003/87/EC, the Commission has submitted a report to the European Parliament and the Council considering the functioning of the Scheme. See the EU homepage under [http://ec.europa.eu/environment/climat/emission/pdf/com2006\\_676final\\_en.pdf](http://ec.europa.eu/environment/climat/emission/pdf/com2006_676final_en.pdf) for this report which expressly considers extending the EU ETS into N<sub>2</sub>O emissions (see page 6 therein).



the PDD, the daily production was declared to be 841.11 tHNO<sub>3</sub>/day and the annual operation time was estimated to be 330 days. 329 days is used in the revised PDD so the annual capacity is revised to be 276,725 t/year (841.11 tHNO<sub>3</sub>/day x 329 days/year) from 277,566 t/year.

Following an approach similar to CDM i.e in accordance with EB31 Paragraph 28 that "either validating or verifying DOE could undertake the task of determination of the permitted operating conditions for project activities using approved methodology AM0034 Version 02", SGS and the Project Participants agreed that this part of work is not in the scope of this determination. Hence AFR, AIFR, OT<sub>normal</sub>, OP<sub>normal</sub>, CL<sub>normal</sub>, NCSG<sub>BC</sub>, VSG<sub>BC</sub>, NAP<sub>BC</sub> and related baseline parameters that are listed in PDD section D.1.1.3 are not reviewed during this determination process. UNC of the monitoring system derived from EN14181 QAL2 was not within the scope of validation.

### 3.4 Monitoring Methodology and Monitoring Plan

The project is applying approved CDM monitoring methodology AM0034 Version 2. The project meets all the applicability criteria listed in the methodology. The monitoring plan in the PDD addresses all parameters necessary for calculation of baseline and project emissions; QA/QC procedures for each parameter are described in the monitoring plan as required in the methodology. Procedures for calibration of the monitoring system were also described in the PDD.

According to AM0034, no leakage calculation is required for this project.

NIR2 was raised because it was not clear if the monitoring system has been/will be certified to meet the prevailing best industry standard (eg. EN14181). PPs responded that they have obtained two certifications: (1) Declaration of Conformity – Measurement Instrumentation Check of conformity with AM0034 performed from July 25 through July 27, 2007 and (2) Certification of the software ad on D-EMS-2000 CDM. It is SGS' opinion that these two certifications cannot address the issue in question, but since this issue concerns the determination of baseline parameters as well, NIR2 was closed out and the compliance with the prevailing best industry standard (eg. EN14181) needs to be assessed before the baseline parameters are signed-off by the verifying AIE.

CAR3 was raised to ask for identifying procedures in PDD for below activities:

1. Review of reported results/data
2. Internal audits of GHG project compliance with operational requirements
3. Project performance reviews before data is submitted for verification
4. Corrective actions in order to provide for more accurate future monitoring and reporting.

CAR3 was closed out after relevant procedures were provided in revised PDD.

### 3.5 Project design

From the description of the project, it is expected that the project would introduce state of the art technology to the plant as well as the host country. Project design reflects good practice assuming proper installation and maintenance. The project depends on maintenance and replacement of the secondary catalyst, which will be assisted by catalyst manufacturer. The project is expected to run longer than the crediting period.

Based on the JI PDD guideline, CAR2 was raised to ask the participant to complete PDD section D.1.1.4.

NIR4 was raised because it was not clear where the start date in PDD section C.1 was derived

from.

NIR5 was raised to ask a specific starting date of crediting period in C.3. The updated PDD addressed all three issues, hence CAR2, NIR4 and NIR5 were closed out.

It is expected that the crediting period will start on the latest date between the suggested date in the PDD (01/07/2008), the date of registration and the date of the completion of the baseline campaign after it is signed-off by the verifying AIE. The duration is 4 years and 6 months.

### 3.6 Environmental Impacts

The Project includes installation of catalyst in an existing reactor. Negative environmental impacts are therefore expected to be minimal.

NIR3 was raised to ask for evidence that there is no requirement by the Host Party for an Environmental Impact Assessment. Through reference to the applicable legislation, an interview with Mr Jacek Iwański – local representatives of Environmental Authority – Urząd Marszałkowski Województwa Małopolskiego, and the written reply from this local authority (SR.XII.JI.6665-3-6-07 dated on 08.08.2007 Małopolski Urząd Wojewódzki in Kraków), it was confirmed that an EIA is not required for this activity. NIR3 was closed out.

## 4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

In according with the modalities for the determination of JI projects, the validator shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited observers and make them publicly available.

### 4.1 Description of how and when the PDD was made publicly available

The PDD for this project was made available on the UNFCCC JI website under

[http://ji.unfccc.int/JI\\_Projects/DB/TQSGCPFS6D8221AJLYTTK9Q8XPGAQJ/PublicPDD/DTN219B78ZWZZ5F6BCUJLRQTTFESGE/view.html](http://ji.unfccc.int/JI_Projects/DB/TQSGCPFS6D8221AJLYTTK9Q8XPGAQJ/PublicPDD/DTN219B78ZWZZ5F6BCUJLRQTTFESGE/view.html)

and was open for comments from 30 October 2007 to 28 November 2007 (17:00 GMT).

### 4.2 Compilation of all comments received

One comment has been received as below:

Email sent: 9/11/2007

From: Dr. Karsten Karschunke

*Dear James Clarke,*

*reviewing preliminarily the PDD presented for public consultation at the JISC Web Site, the following questions with respect to the baseline determination arise:*

*In section A.4.3 is stated that "The baseline scenario is the continuation of the current practice as the most economically attractive course of action (for details, see Section B). This logic is backed by no additional regulatory requirements in Poland to affect N2O emissions beyond the current status of ZAT and no economic incentives for reduction of N2O".*

*This statement is repeated on page 10 under Step 2 and therefore it is concluded that the only realistic baseline scenario is the continuation of the current situation.*

*Since Poland is a member state of the European Union the "Acquis Communautaire" should be reflected in the reference scenario of any proposed project activities according to Article 11b of the Emission Trading Directive (2003/87/EC and 2004/101/EC), this includes the IPPC-Directive (96/61/EC) which will come into effect fully in Poland at the end of 2010.*

*Nitric acid plants are listed in Annex I Nr. 4.2 b) of the IPPC-directive and nitrous oxide (N<sub>2</sub>O) is listed as an air pollutant in Annex III Nr. 2. Therefore according to article 9 of the IPPC-Directive, BAT based emission limit values should be set in the permit by the competent authority. The production of nitric acid is dealt with in detail in Chapter 3 of the BAT Reference Document "Large Volume Inorganic Chemicals - Ammonia, Acids, Fertilizers" (BREF LVIC-AAF), prepared by the European Integrated Pollution Prevention and Control Bureau (EIPPCB) of the European Commission.*

*We kindly ask you to include in your determination report a thorough analysis of the legal requirements for nitric acid plants in Poland taking EU Law into account.*

*Yours sincerely,  
on behalf of the Federal Environment Agency,*

*Dr. Karsten Karschunke*

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<http://www.umweltbundesamt.de/emissionshandel>

This comment has been made publicly available in the determination process, forwarded to Project Participants (PPs) for their response. The PPs' response is as following:

\*\*\*\*\*Quote\*\*\*\*\*

Mitsubishi/ZAT's comments on Dr Karsten Karschunke's letter of 9 November 2007

Dr Karsten Karschunke of the Federal Environment Agency wrote in his letter of 9 November 2007 addressed to James Clarke of SGS UK Ltd. re. the preliminary PDD of 25 October 2007 presented at the JISC Website (Project 0091) that the determination report should contain a thorough analysis of the legal requirements for nitric acid plants in Poland taking EU Law into account. This suggestion was made because section A.4.3.1 of the PDD states "The baseline is a continuation of the current practice [...]. This logic is backed by no additional regulatory requirements in Poland to affect N<sub>2</sub>O emissions beyond the current status of ZAT and no economic incentives for reduction of N<sub>2</sub>O". Dr Karschunke added in his letter that since Poland is a member state of the European Union, the "Acquis Communautaire" should be reflected in the reference scenario of any proposed project activities, which includes the IPPC Directive (96/61/EC). In this context, Dr Karschunke also mentioned the BAT Reference Document "Large Volume Inorganic Chemicals – Ammonia, Acids, Fertilizers" (BREF LVIC-AAF), which was finalized in August 2007.

It should be emphasized that Zakłady Azotowe w Tarnowie-Mościcach S.A. (ZAT) is an existing installation which commenced its nitric acid production in 1992. It is an IPPC installation and holds a valid IPPC permit. The JI activity involves the installation of a secondary catalyst to decompose N<sub>2</sub>O inside the reactor.

Having thoroughly analysed Dr Karschunke's suggestions, we are pleased to provide the following comments:

1. The IPPC Directive provides an integrated approach to establish pollution prevention from stationary "installations", as listed in the Directive, which states a wide range of polluting activities, including pollution from nitric acid plants (Annex I section 4.2b). This Directive imposes the requirement that industrial activities with a high pollution potential obtain a permit, which can only be issued if certain environmental conditions are met. In order to obtain a permit, an industrial installation must comply with certain basic obligations. In particular, it must use all appropriate pollution-prevention measures, namely the best available techniques (BAT). In order to harmonize the application of BAT, within the framework of exchange of information provided by Article 16.2 of the IPPC Directive of 1996 (repealed by Directive 2008/1/EC of 15 January 2008 concerning integrated pollution prevention and control), so-called EU BREFs (reference documents) are issued as a result of wide consultations within the IPPC Directive framework. BREFs constitute technical information (guidelines) and as such are not legally binding. Nevertheless, operators of the IPPC installations and appropriate national authorities competent to issue IPPC permits, with due account to flexibility left by the IPPC Directive, take them into account.
2. The IPPC Directive does not provide when BREFs, after their adoption and publication within the framework of exchange of information, should be reflected in the practice of operators of IPPC installations and appropriate national authorities issuing IPPC permits. It is obvious that the existing installations for which IPPC permits have already been issued need appropriate adjustment periods to implement new BREFs like adjustment periods in various EU directives.
3. It is a well-established practice in the EU that implementation and enforcement of new technical requirements for existing installations should be preceded by appropriate adjustment (transitional) periods. As a rule, member states are given some 18-24 months from the date of adoption of a directive to transpose the directive into their national legislation. In addition, the implementation of new requirements is delayed further to give businesses appropriate time for adjustment. For example, the Large Combustion Plants Directive (2001/80/EC) was adopted in 2001, while the existing installations covered by the Directive were granted adjustment periods until 1 January 2008 to comply with new stringent emission limit values.
4. Immediate implementation and enforcement of the BREF LVIC-AAF after its finalization in August 2007 would not only be irrational, but also contrary to the well-established EU practice relating to new requirements imposed on industrial sectors. This thinking and practice are fully reflected in a proposal for a Directive on industrial emissions (incorporating and revising IPPC Directive) of 21 December 2007 (COM/2007/844 final). Article 18 para. 3 of the proposal provides that "Where the Commission adopts a new or updated BAT reference document, Member States shall, within four years of publication, where necessary, reconsider and update the general binding rules for the installations concerned". This provision, based on good reason, clearly suggests a fairly long adjustment period in the case of new or updated BREFs.

5. Taking into account the fact that the BREF LVIC-AAF was only finalized in August 2007, the authorities of the Member States competent to issue IPPC permits, including Polish authorities, should implement a process for updating the IPPC permits issued. The Polish Environmental Protection Law of 2001 provides for the updating of IPPC permits, but it does not say when exactly the updating should be commenced and finalized.
6. The catalyst to be placed in ZAT's installation within the Project 0091 framework reflects BAT in the meaning of the BREF LVIC-AAF and therefore this fact should be mentioned in the determination report. However, for the reasons given above, and the fact that the preparatory work on Project 0091 was already undertaken in 2006, the BREF LVIC-AAF cannot be reflected in the reference scenario of the proposed activities. If the BREF LVIC-AAF was used at this stage for calculating the emission baseline, it would undermine the business feasibility of the project. If the project was abandoned by its parties, the main victim of this situation would be the environment.
7. According to Article 11b of Directive 2004/101/EC, "Member States shall take all necessary measures to ensure that baselines for project activities [...] fully comply with the *acquis communautaire* [...]". In the case of ZAT, this could take place by the appropriate environmental authority's reviewing or updating IPPC permits. However, taking into account the advanced stage of the present project and the necessary adjustment period for the BREF LVIC-AAF in the case of existing installations, it is unlikely that a revised permit for ZAT could become a basis for calculating a baseline for Project 0091.

\*\*\*\*\*Unquote\*\*\*\*\*

The comment had been also included in the checklist (the 4<sup>th</sup> issue in the checklist) for clarification with relevant authority in host country by SGS local assessor.

It was confirmed during site visit that ZAT in Tarnów has valid IPPC permit (ŚR.XIV.JI.6663-5-06 dated on 07.05.2007). In the mentioned permit the only limit for emission is set for NO<sub>2</sub>. According to Polish regulations (Polish order Dz.U. Nr1 poz. 12 dated 5th December 2002), there are currently no limits for N<sub>2</sub>O emissions, and this was also confirmed through the interview with Ministry of Environment (Mr Marcin Wisniewski from IPPC Department). It was also noted that Ministry of Environment of Poland is in the process of reviewing new proposal for Directive and of the council on industrial emissions (IPPC) as from 21/12/2007 which is going to replace IPPC-Directive (96/61/EC). The official information about the new requirements coming from that proposal will be introduced in 2008.

Furthermore, according to step 5 "Re-assessment of Baseline Scenario in course of proposed project activity's lifetime" and conclusion in Section B.1 of PDD, if legal regulations on N<sub>2</sub>O emissions are introduced or changed during the crediting period, the baseline emissions shall be adjusted at the time the legislation has to be legally implemented, so the forthcoming new regulation is not supposed to affect the baseline determination for this project at this stage, and the baseline will be adjusted accordingly when the new regulation is in place.

Therefore, the given comment has been taken account during the determination process as above.

## 5 DETERMINATION OPINION

SGS has performed a determination of the project “N<sub>2</sub>O abatement project at nitric acid plant of ZAT, Poland”. The determination was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

By the installation of N<sub>2</sub>O abatement technology, the project results in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. The investment analysis demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions of 573,986 tonnes of CO<sub>2</sub> equivalent per year.

The determination is based on the information made available to SGS and the engagement conditions detailed in the report. The determination has been performed using a risk based approach as described above.

The determination has revealed that the project has not been able to show that the project has approval of the Parties involved. Hence a qualified determination opinion is issued for this project.

#### Opinion of double counting:

Taking into account the Commission decision of 13 November 2006 on avoiding double counting of greenhouse gas emission reductions under the Community emissions trading scheme for project activities under the Kyoto Protocol pursuant to Directive 2003/87/EC of the European Parliament and of the Council, SGS verified that the emission reductions generated by this JI project are not double counted under the Community emissions trading scheme.

The nitric acid synthesis installation has not been stated as activity in the Annex I to the directive 2003/87/WE establishing the EU ETS.

The GHG emission reductions achieved by the project are from the reduction of N<sub>2</sub>O emissions. N<sub>2</sub>O is currently not covered under the EU Emissions Trading Scheme, so that no possibility of double counting exists. The GHG reduced in the project (N<sub>2</sub>O) has not been stated in the Annex I to the directive 2003/87/WE establishing the EU ETS.

## REFERENCES

### Category 1 Documents:

List documents provided by the Client that relate directly to the GHG components of the project, (i.e. the Project Design Document and written approval of voluntary participation from the national focal point). These should have been used as direct sources of evidence for the determination conclusions, and are usually further checked through interviews with key personnel.

- /1/ PDD, the following versions have been reviewed
  - Version 01 dated 25/10/2007 and made publicly available;
  - Version 02 dated 11/02/2008;
  - Version 03 dated 13/03/2008;
  - Version 03, dated 31/03/2008.
- /2/ Letter of Approval issued by Japanese Government dated 27/12/2007
- /3/ Letter of Endorsment issued by Polish Government dated 12/02/2008

### Category 2 Documents:

List background documents related to the design and/or methodologies employed in the design or other reference documents. Where applicable, Category 2 documents should have been used to check project assumptions and confirm the validity of information given in the Category 1 documents and in follow-up interviews.

- /4/ AM0034, version 02
- /5/ NA-13 Technological instruction dated on November 1999 ? - Instrukcja Technologiczna dla procesu otrzymywania kwasu azotowego technicznego metoda dwucisnieniowa.
- /6/ "Capacity production for 2005" were approved (TP/AB/338/2004) dated on 11.10.2004
- /7/ Official question of ZAT to the local EA Małopolski Urząd Wojewódzki doc. TB2/JK/1397/2007 dated on 01.07.2007 asking about EIA and the scope of the study
- /8/ Document SR.XII.JI.6665-3-6-07 dated on 08.08.2007 Małopolski Urząd Wojewódzki in Kraków regarding questions of ZAT about EIA scope.
- /9/ Investment work nr 2799-00 I 2710-00) dated on 21.08.2007
- /10/ List of the stakeholders invited on the meeting on 09.10.2007
- /11/ Official letter sent to stakeholders dated on 25.09.2007
- /12/ Minuets from the stakeholders meeting held in Zakłady Azotowe Tarnów Mościce S.A. on 09.10.2007
- /13/ AM0028, version 4.1
- /14/ Tool for demonstration and assessment of additionality (version 3)
- /15/ example of poster and scan of the newspaper with advertisement

### Persons interviewed:

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

<b>Date</b>	<b>Name</b>	<b>Position</b>	<b>Short Description of Subject Discussed</b>
09.01.2008	Marcin Potempa	Manager of ZAT Department for Development and Technical supervision	All issues and documentation
09.01.2008	Minoru Moriumura	Deputy GM, Emission Reduction Business Unit, Mitsubishi Corporation	Supporting consultant for ZAT
09.01.2008	Joanna Klikowicz	Environmental Specialist in ZAT	Environmental performance in ZAT: emissions, waste, IPPC permit
09.01.2008	Jacek Iwański	local representatives of Environmental Authority – Urząd Marszałkowski Województwa Małopolskiego	EIA issues
01.2008	Mr Marcin Wisniewski	Ministry of Environment, IPPC (Department)	IPPC issues



## Annex 1: Determination Protocol

**Table 1 Participation Requirements for Joint Implementation (JI) Project Activities**

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1. The project shall have the approval of the Parties involved	DR	Kyoto Protocol Article 6.1 (a)	No evidence provided that the project has been approved by the Parties involved.	CAR1	
2. Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur	DR	Kyoto Protocol Article 6.1 (b)	The baseline information needs to be verified by site visit.	Pending	The baseline campaign has started on 7 <sup>th</sup> July 2007 at 13:40. Due to some technical problems AMS recorded data from 30 July, that is why the baseline campaign is repeated starting from 21 <sup>st</sup> December 2007 14:05.
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under	DR	Kyoto Protocol Article 6.1 (c)	Japan has submitted its Initial Report on 30 Aug. 2006 (Updated on 13 Jun	Obs1	

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
Articles 5 & 7		<a href="http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/items/3765.php">http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/items/3765.php</a>	2007), while it is not clear if Poland is in compliance with its obligations under Articles 7 of the Kyoto Protocol. This will need to be confirmed before the project can officially be recognized as JI project.		
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3		Kyoto Protocol Article 6.1 (d)	As per 4th national communication, Poland has implemented policies and measures to reduce GHG emissions: <a href="http://unfccc.int/resource/docs/natc/polnc4.pdf">http://unfccc.int/resource/docs/natc/polnc4.pdf</a>  As per 4th national communication, Japan has implemented policies and measures to reduce GHG emissions: <a href="http://unfccc.int/resource/docs/natc/japnc4.pdf">http://unfccc.int/resource/docs/natc/japnc4.pdf</a>	OK	OK
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI		Marrakech Accords, JI Modalities, §20	Both Parties have designated their National Focal Points.  The national guidelines	NIR1	

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
projects			and procedures for the approval of JI project in Japan are available as of 6 Nov 2007  Refer to: <a href="http://ji.unfccc.int/JI_Parties/Parties/index.html#Japan">http://ji.unfccc.int/JI_Parties/Parties/index.html#Japan</a>  The national guidelines and procedures for the approval of JI project in Poland are not available as of 5 Dec 2007, refer to:  <a href="http://ji.unfccc.int/JI_Parties/Parties/index.html#Poland">http://ji.unfccc.int/JI_Parties/Parties/index.html#Poland</a>		
6. The host Party shall be a Party to the Kyoto Protocol		Marrakech Accords, JI Modalities, §21(a)/24	Poland has ratified Kyoto protocol on 13 Dec 2002  <a href="http://maindb.unfccc.int/public/country.pl?country=PL">http://maindb.unfccc.int/public/country.pl?country=PL</a>	OK	OK
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts		Marrakech Accords, JI Modalities, §21(b)/24	Information on this is not available at the moment and is not at PP's discretion.  This will need to be	Obs2	Obs2

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
			confirmed before the project can officially be recognized as JI project.		
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4		Marrakech Accords, JI Modalities, §21(d)/24	No information is available and out of PP's control at the moment.  This will need to be confirmed before the project can officially be recognized as JI project.	Obs3	Obs3
9. The project desing document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments		Marrakech Accords, JI Modalities, §32	The PDD for this project is available on the UNFCCC website <a href="http://ji.unfccc.int/JI_Projects/Verification/PDD">http://ji.unfccc.int/JI Projects/Verification/PDD</a> and open for comments from 30 Oct 07 until 28 Nov-07. One comment was received.	OK	
10. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants		Marrakech Accords, JI Modalities, §33(d)	Evidence needs to be provided to justify the declaration in PDD section F that EIA is not required by law and regulation of Poland.  Pending feedback from the local assessment.	See table 6 below	See Table 10

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out					
11. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project		Marrakech Accords, JI Modalities, Appendix B	According to AM0034, the baseline of proposed project will be established through historical data and monitored data during baseline campaign, this is a conservative manner representing the GHG emissions or removal by sources that would occur in absence of the proposed project.	See table 2A below	
12. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances		Marrakech Accords, JI Modalities, Appendix B	PDD declares that there are no regulations or legal obligations in Poland concerning N2O emissions and recycle of byproduct waste. Need to be confirmed by local assessor. See 3.2 below	See 3.2 below	See table 10
13. The baseline methodology shall exclude to earn ERUs for decreases in activity levels outside the project activity or due to force majeure	,	Marrakech Accords, JI Modalities Appendix B	Baseline methodology AM0034 has excluded the possibility of earning ERUs by decreasing in	OK	

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
			activity levels outside the project activity or due to force majeure.		
14. The project shall have an appropriate monitoring plan		Marrakech Accords, JI Modalities, §33(c)	Monitoring plan is based on AM0034.	OK	
15. Does the PDD use accurate and reliable information that can be verified in an objective manner?			Pending close out findings	Pending	
16. Will the project result in fewer GHG emissions than the baseline scenario?			Pending close out findings	Pending	

## 2 BASELINE METHODOLOGY(IES)

Flow chart	Answer	Next step
Does the project use an CDM approved baseline methodology	Yes	Complete table 2A
	<del>No</del>	<del>Complete table 2B</del>

**Table 2A Application of approved methodology**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology	PDD	DR, Site visit	Pending on local assessment.	Pending	See table 10
2.2 Is the project boundary consistent with the approved methodology	PDD AM0 034	DR	Yes. The spatial extent of the project boundary covers the facility and equipment for the complete nitric acid production process of ZAT, from the input of the liquid ammonia and air to the stack. A plant specific flow diagram is provided in PDD section B.3.	OK	OK
2.3 Are the baseline emissions determined in accordance with the methodology described	PDD AM0 034	DR	<p>Yes, approaches provided in AM0034 are adopted. Dummy data are used when estimating the baseline emissions in PDD section E.</p> <p>According to the EB 31 Report paragraph 28: <i>The Board clarified that either validating or verifying DOE could undertake the task of determination of the permitted operating conditions for project activities using approved methodology AM0034. The determination of the permitted operating conditions, if done at verification, should be as per the approved methodology.</i> Hence, the AIE SGS and client MITSUBISHI agreed that the baseline emissions are left to be determined during verification process.</p>	OK	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.4 Are the project emissions determined in accordance with the methodology described	PDD AM0 034	DR	Yes, the project emissions are determined in accordance with AM0034.	OK	OK
2.5 Is the leakage of the project activity determined in accordance with the methodology described	PDD AM0 034	DR	No leakage needs to be considered under AM0034.	OK	OK
2.6 Are the emission reductions determined in accordance with the methodology described	PDD AM0 034	DR	Yes, the emission reductions are determined in accordance with AM0034	OK	OK
2.7 Has the methodology been applied exactly as defined including formulas and the application of the formulas to calculate emissions and emission reductions .	PDD AM0 034	DR	Yes, the formulas provided in AM0034 are directly used.	OK	OK
2.8 Are all the data sources clear and are references to documents publicly available and cited fully in the PDD	PDD AM0 034	DR	Pending local assessor feedback. See 2.1 above.	pendi ng	

### Table 2B Baseline methodology not using an approved CDM methodology

Not applicable.

### Table 3 Additionality

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Is the discussion and selection of the baseline transparent?	PDD AM0 034	DR	Waiting confirmation from the local assessor that there are no regulations to capture/destroy N2O in Poland and ZAT so far.	Pendi ng	



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.2 Is the discussion on the additionality clear and have all assumptions been supported by transparent and documented evidence	PDD AMO 034	DR	PDD declares that there are no regulations or legal obligations in Poland concerning N2O emissions and recycle of byproduct waste. Need to be confirmed by local assessor.  CDM Additionality Tool (version 03) is used to discuss the additionality, wherein Simple cost analysis (option I) is applied because the project does not generate financial return except for ERU.	Pending on local assessment	See Table 10
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD AMO 034	DR	See above.	Pending	
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	PDD AMO 034	DR	See above.	Pending	
3.5 Are all the data sources clear and are references to documents publicly available and cited fully in the PDD			Pending	Pending	

#### 4 MONITORING METHODOLOGY(IES)

Flow chart	Answer	Next step
Does the project use an CDM approved monitoring	Yes	Complete table 4A
	No	<del>Complete table 4B and</del>

Flow chart	Answer	Next step
methodology		table

**Table 4A Application of an approved Monitoring methodology**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the applicability criteria listed in the monitoring methodology	PDD AM0 034	DR/S V/I	Pending on local assessment. See 2.1 above	Pending	
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology	PDD AM0 034	DR/S V/I	Yes, the baseline emissions are determined as per AM0034.	OK	OK
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology	PDD AM0 034	DR	The project emissions are to be monitored as per AM0034, it is not clear if the monitoring system has been/will be certified to meet the prevailing best industry standard (eg. EN14181).	NIR2	
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology	PDD AM0 034	DR	No leakage needs to be considered under AM0034.	OK	OK
4.5 Has the methodology been applied exactly as defined including formulas and the application of the formulas to calculate emissions and emission reductions.	PDD AM0 034	DR	Yes, requests and formulas described in AM0034 for calculating the emissions and its reduction are exactly applied in PDD.	OK	OK
4.6 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as			QA/QC provided in PDD are in accordance with AM0034 requirements,	Pending	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
required in the monitoring methodology			pending close out NIR in 4.3 above.		

**Table 4B Monitoring methodology not using an approved CDM methodology**

Not applicable

**Table 5 Monitoring plan**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD AM0 034	DR	Although not required under the methodology and therefore not compulsory, this means it would be difficult to determine the impact of the project on these aspects.	OK	OK
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD AM0 034	DR	See above comments.	OK	OK
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD AM0 034	DR	See above comments.	OK	OK
5.1.3 Will it be possible to monitor the specified sustainable development indicators?	PDD AM0	DR	See above comments.	OK	OK

CHECKLIST QUESTION	Ref.	MoV *	COMMENTS	Draft Concl	Final Concl
	034				
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD AM0 034	DR	See above comments.	OK	OK
5.2 Project Management Planning					
5.2.1 Is the authority and responsibility of project management clearly described?	PDD	DR	The management structure is properly described in PDD.	OK	OK
5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	Responsibility for monitoring and reporting is described in PDD.	OK	OK
5.2.3 Are procedures identified for training of monitoring personnel?	PDD	DR	PDD indicates that a training program for each operator will be taken place before the project start, plus comprehensive operating guide & quality control will be developed	OK	OK
5.2.4 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	Corresponding training will be done according to the procedure PRJ-13 "Training"	OK	OK
5.2.5 Are procedures identified for calibration of monitoring equipment?	PDD AM0 034	DR	Calibration of monitoring equipment will be performed as per prevailing best industry practice.	OK	OK
5.2.6 Are procedures identified for maintenance of monitoring equipment and installations?	PDD AM0 034	DR	Maintenance of monitoring equipment will be performed as per prevailing best industry practice.	OK	OK
5.2.7 Are procedures identified for monitoring, measurements and reporting?	PDD	DR	Procedures for monitoring and reporting	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			are identified in PDD.		
5.2.8 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	Monitoring system (AMS) will be used.	OK	OK
5.2.9 Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD AM0 034	DR	Monitoring data adjustments and uncertainties are performed by AMS and the formula provided in AM0034.	OK	OK
5.2.10 Are procedures identified for review of reported results/data?	PDD	DR	No procedure identified.	CAR3	OK
5.2.11 Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	No procedure identified.	CAR3	OK
5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	No procedure identified.	CAR3	OK
5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR	No procedure identified.	CAR3	OK

**Table 6 Environmental Impacts (Ref PDD Section F and relevant local legislation)**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. 6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	Project includes installation of catalyst in existing stack, negative environmental impacts should be minimal. Impacts of water and wastewater, air, noise and solid waste etc. of the proposed JI project are	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			briefly analyzed in PDD.		
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	PDD says Environmental Impact Assessment (EIA) is not necessary for these project activities under the law and regulations of Poland and confirmation with the Malopolskie Voivodship Office, evidence needs to be provided.	NIR3	OK
6.3 Will the project create any adverse environmental effects?	PDD	DR	Project includes installation of catalyst in existing stack, negative environmental impacts should be minimal.	OK	OK
6.4 Are transboundary environmental impacts considered in the analysis?	PDD	DR	Project includes installation of catalyst in existing stack, negative environmental impacts should be minimal.	OK	OK
6.5 Have identified environmental impacts been addressed in the project design?	PDD	DR	Project includes installation of catalyst in existing stack, negative environmental impacts should be minimal.	OK	OK
6.6 Does the project comply with environmental legislation in the host country?	PDD	DR/S V	Pending on 6.2 above ZAT in Tarnów has valid IPPC permit ŚR.XIV.JI.6663-5-06 dated on 07.05.2007. In the mentioned permit the only limit for emission is set for NO <sub>2</sub> for 256 Mg/year. According to measurements made for 2007 the NO <sub>2</sub> emissions were 215 Mg/year (Ref 3).	Pending	OK

**Table 7** Comments by local stakeholders (Ref PDD Section G)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2. 7.1 Have relevant stakeholders been consulted?	PDD	DR	Stakeholder meeting has been held at PHG Moscice, (ul. Kwiatkowskiego 20) in Tarnow-Moscice on 9 October, 2007	OK	OK
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR/s v	Local stakeholders were invited to the consultation through advertisement in Polish and in English in a local newspaper – Gazeta Krakowska, and invitation announced on all ZAT internal announcement boards, and again direct invitations have been sent to selected administration offices, companies and governmental organizations. To be confirmed through local assessment.	Pending	OK
7.3 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?	PDD	DR/s v	Pending on local assessment	Pending	OK
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	None of those comments were specific about the project activities. To be confirmed by local assessor.	Pending	OK
7.5 Has due account been taken of any stakeholder comments received?			No negative or technical comments with regard to the project have been received from stakeholders. To be confirmed by local assessor.	Pending	OK

**Table 8 Other requirements**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<b>8.1 Project Design Document</b>					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	PDD section D.1.1.4 is NOT completed (baseline part mentioned in PDD section D.1.1.2 is supposed to be under D.1.1.4)	CAR2	OK
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Yes.	OK	OK
<b>8.2 Technology to be employed</b>					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	Project would involve transfer of state of the art equipment and seems to reflect good practices assuming proper installation and maintenance.	OK	OK
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	Project would involve transfer of state of the art equipment and seems to reflect good practices assuming proper installation and maintenance.	OK	OK
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	Since technology is relatively new, this is hard to predict but with 4.5 years (the lifetime of the project claimed in PDD), this seems unlikely.	OK	OK
8.2.4 Does the project require extensive initial training and	PDD	DR	Yes. As a relatively new technology is to be	OK	OK



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
maintenance efforts in order to work as presumed during the project period?			applied in ZAT, extensive initial training and maintenance efforts are required, this has been foreseen by the project developer and training procedures are mentioned in PDD.		
<b>8.3 Duration of the Project/ Crediting Period</b>					
8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	No, 3 different dates are given in PDD section C.1. According to JI PDD guideline, "The starting date of a JI project is the date on which the implementation or construction or real action of the project begins".	NIR4	OK
8.3.2 Is the assumed crediting time clearly defined and reasonable?	PDD	DR	No, starting date is not specified in PDD.	NIR5	OK
8.3.3 Does the project's operational lifetime exceed the crediting period	PDD	DR	Pending close out NIR in 8.3.1 and 8.3.2	Pending	OK

**Table 9 Additional requirements for AR projects (based on CDM requirements)**

Not applicable

## Annex 2: Findings Overview

Date: 5-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
1	CAR1	Please provide the Letter of Approval of Parties.	1.1
Date: 12 February, 2008 [Comments from project participant]: 1. We provided SGS with Letter of Approval issued by Japanese Government dated December 27, 2007. 2. We understand that issuance of Letter of Approval by Polish Government is subject to our submission of SGS's Preliminary Determination report to Polish Government and its evaluation by Polish Government. Thus, we would like to submit your Preliminary Determination report to Polish Government as soon as it is issued.			
Acceptance and close out: <b>CAR1 remains</b> Date:			

Date: 5-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
2	NIR1	The national guidelines and procedures for the approval of JI project in Poland are not available as of 5 Dec 2007, refer to: <a href="http://ji.unfccc.int/JI_Parties/Parties/index.html#Poland">http://ji.unfccc.int/JI_Parties/Parties/index.html#Poland</a>	1.5
Date: 12 February, 2008 [Comments from project participant]: We understand that Polish Government is now working to introduce the legal regulation regarding JI projects. However, we also understand that issuance of the national guidelines and procedures by Polish Government are not mandatory requirements by the United Nations.			
Acceptance and close out: <b>NIR1 remains.</b> Date:			

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
3	NIR2	The project emissions are to be monitored as per AM0034, it is not clear if the monitoring system has been/will be certified to meet the prevailing best industry standard (eg. EN14181).	4.3
Date: 12 February, 2008 [Comments from project participant]: We understand that our Automated Monitoring System satisfy with requirements of AM0034 based on the following certifications provided by TUV Sud. (1) Declaration of Conformity – Measurement Instrumentation Check of conformity with the methodology AM0034 performed from July 25 through July 27, 2007 by TUV Sud (2) Certification of the software ad on D-EMS-2000 CDM. These documents were provided to local assessor at site check on January 9, 2008.			
Acceptance and close out: According to the contract, based on EB31 meeting report, baseline parameters will be determined during verification, so this NIR is longer applicable, hence, <b>NIR2 closed out.</b> Date: 13/03/2008, Elton Chen Wu			

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
4	CAR2	Procedures for below monitoring activities need to be identified 1) review of reported results/data. 2) internal audits of GHG project compliance with operational requirements. 3) project performance reviews before data is submitted for verification. 4) corrective actions in order to provide for more accurate future monitoring and reporting.	5.2.10 5.2.11 5.2.12 5.2.13

Date: 12 February, 2008

[Comments from project participant]:

We revised our PDD by incorporating requested information.

 Acceptance and close out: Procedures are provided in the revised PDD, **CAR2 closed out.**

Date: 13/03/2008 Elton Chen Wu

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
5	NIR3	Can you please provide evidence that " <i>Environmental Impact Assessment (EIA) is not necessary for these project activities under the law and regulations of Poland and confirmation with the Malopolskie Voivodship Office</i> "?	6.2

Date: 12 February, 2008

[Comments from project participant]:

We provided SGS's local assessor with the copy of confirmation letter as well as our arrangement of direct interview with local environment authority on January 9, 2008.

 Acceptance and close out: Through the interview of representative of local EPA, and verifying the reply from local EPA, it is confirmed that the EIA is not required for this proposed project. **NIR3 close out.**

Date: 13/03/2008 Elton Chen Wu

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
6	CAR3	PDD section D.1.1.4 is not completed (baseline part mentioned in PDD section D.1.1.2 is supposed to be under D.1.1.4).	8.1.1

Date: 12 February, 2008

[Comments from project participant]:

We changed the format of PDD as requested.

 Acceptance and close out: Baseline description was moved to D.1.1.4 in the revised PDD as per PDD guidance, **CAR3 closed out.**

Date: 13/03/2008

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
7	NIR4	According to JI PDD guideline, " <i>The starting date of a JI project is the date on which the implementation or construction or real action of the project begins</i> ", please provide such a date in PDD section C.1.	8.3.1

Date: 12 February, 2008

[Comments from project participant]:

TUV Sud confirmed that our baseline monitoring with Automated Monitoring System started from

30 July 2007, as its evidence was provided to local assessor at site check. We assume that starting date of this JI project is the date that we started monitoring baseline monitoring requested by AM0034. Thus, as described in PDD, we set "the starting date" as 30 July, 2007.

Acceptance and close out: Starting date was based on the installation of monitoring system, the date was confirmed through onsite visit, NIR4 closed out.

Date: 13/03/2008 Elton Chen Wu

Date: 05-12-2007

Raised by: Elton Chen

No.	Type	Issue	Ref
8	NIR5	Besides the length of the crediting period, its starting date needs to be specified in section C.3 as well.	8.3.2

Date: 12 February, 2008

[Comments from project participant]:

We corrected PDD to "4 years and 6 months from July 1, 2008".

Acceptance and close out: Starting date has been specified in revised PDD as 30/07/2008. NIR5 closed out.

Date: 01/04/2008. Elton Chen

### **Observations:**

#### **Observation 1**

At this point in time it is not clear if Poland is in compliance with its obligations under Article 7 of the Kyoto Protocol. This has to be confirmed before the project can officially be recognized as JI project.

#### **Observation 2**

The host Party's (Poland) assigned amount shall have been calculated and recorded in accordance with the modalities for accounting assigned amounts, this will need to be confirmed before the project can officially be recognized as JI project.

#### **Observation 3**

The host Party (Poland) shall have in place a national registry in accordance with Article 7, paragraph 4, this will need to be confirmed before the project can officially be recognized as JI project.

**Annex 3: Additional information to be verified by local assessors / site visit**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. When did the plant start operation? How much is the design capacity of nitric acid production? Is it in line with the description (277566t/year for 100% HNO <sub>3</sub> base)	PDD, AM0034	Interview Check the original design documents. Or any supplementary documents in case plant was revamped.	The plant has start the operation in1992. Annual design capacity was 700 (Mg/day for 100% HNO <sub>3</sub> base. Design annual working time was 330 days/year. Design annual capacity was 233000 (Mg/year for 100% HNO <sub>3</sub> base) – according to Technological instruction dated on November 1999 (Ref 5) On 11.10.2004 the “capacity production in 2005” were approved (TP/AB/338/2004). According to above document design annual capacity was 276 725 Mg/year for 100% HNO <sub>3</sub> base what is 841,11,tHNO <sub>3</sub> /day), design annual working time was estimated for 329 days/year. (ref 6). In PDD it is used figure of daily production 841,11,tHNO <sub>3</sub> /day estimated for 330 days.	The approved working time 329 days is used in the revised PDD.	OK
2. Is there any NO <sub>x</sub> or N <sub>2</sub> O abatement technology currently installed in the plant? In case NO <sub>x</sub> abatement technology is installed, is it a Non-Selective Catalytic Reduction (NSCR) DeNO <sub>x</sub> unit?	PDD, AM0034	Interview Site Inspection	No. The double – pressure installation for nitric acid production does not require any NO <sub>x</sub> or N <sub>2</sub> O abatement systems.	OK	OK
3. Are there any regulatory requirements or incentives to reduce levels of N <sub>2</sub> O emissions		Interview	According to interview Mr Jacek Iwański – local representatives of Environmental Authority – Urząd Marszałkowski	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
from nitric acid plants in Poland?			Województwa Małopolskiego (previous in 2007 Małopolski Urząd Wojewódzki w Krakowie – Wydział Środowiska i Rolnictwa) there is no regulations regarding N2O emissions level reduction.  This information has been also confirmed in Ministry of Environment.		
4. Following above question, based on the comments received during the public commenting period, "IPPC-Directive (96/61/EC) which will come into effect fully in Poland at the end of 2010, Nitric acid plants are listed in Annex I Nr. 4.2 b) of the IPPC-directive and nitrous oxide (N2O) is listed as an air pollutant in Annex III Nr. 2. Therefore according to article 9 of the IPPC-Directive, BAT based emission limit values should be set in the permit by the competent authority. The production of nitric acid is dealt with in detail in Chapter 3 of the BAT Reference Document "Large Volume Inorganic Chemicals - Ammonia, Acids, Fertilizers" (BREF LVIC-AAF), prepared by the European Integrated Pollution Prevention and Control Bureau (EIPPCB) of the European		Check with EPA.	ZAT in Tarnów has valid IPPC permit ŚR.XIV.JI.6663-5-06 dated on 07.05.2007. In the mentioned permit the only limit for emission is set for NO2 for 256 Mg/year. According to Polish regulations: Polish order Dz.U. Nr1 poz. 12 dated on 5 <sup>th</sup> December 2002 there is no limits for N2O emissions. In the above order in annex 1 there are listed all substances that are formally taking into consideration in the process of determining limits of emissions in permits. Because N2O is not mentioned in that annex there is no obligation to set limits in the permit by the competent authority.  According to interview with Ministry of Environment ( Mr Marcin Wisniewski from IPPC Department) the above information are interpreted correctly. Additionally Ministry of Environment is in the process of reviewing new proposal for Directive of EP and of the council on industrial emissions (IPPC) from 21.12.2007 which is going to replace IPPC-Directive (96/61/EC). The official information about the new requirements coming from that	Monitoring the regulation was included in the PDD (EF <sub>reg</sub> )	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Commission”, can you please confirm above and the schedule of implementing the said IPPC-Directive in Poland?			proposal will be introduce in the end of February 2008.		
5. PDD says that EIA for this project is not required by law or regulation of Poland, can you please check with relevant local EPA or verify the evidence if it is provided by project developer.	PDD Section F.	check with relevant local EPA or expert.	<p>According to interview Mr Jacek Iwański – local representatives of Environmental Authority – Urząd Marszałkowski Województwa Małopolskiego (previous in 2007 Małopolski Urząd Wojewódzki w Krakowie – Wydział Środowiska i Rolnictwa) the authority body responsible for issues regarding EIA decided that new investment of ZAT in Tarnowie Mosaicach of N2O abatement is not an investment connected with the changing of installation of nitric acid production as well it is not regarding increasing of the production so there is no legal requirements for developing of EIA.</p> <p>ZAT has sent an official question to the local EA Małopolski Urząd Wojewódzki doc. TB2/JK/1397/2007 dated on 01.07.2007 asking about EIA and the scope of the study.(ref 7)</p> <p>In the replay document SR.XII.JI.6665-3-6-07 dated on 08.08.2007 Małopolski Urząd Wojewódzki in Kraków answered that the design project doesn't require EIA development. (Ref 8)</p>	OK	OK
6. Is a stakeholder consultation process is required by	PDD Section G.	check with relevant local	There is no special requirement regarding stakeholder consultation for this kind of the	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
regulations/laws in Poland for the proposed project?		EPA or expert.	project. According to Polish Environmental law such consultation is required for different kind of investments.		
<p>7. According to the PDD section G (pg41), local stakeholders were invited to the consultation through advertisement in Polish and in English in a local newspaper – Gazeta Krakowska, and invitation announced on all ZAT internal announcement boards, and again direct invitations have been sent to selected administration offices, companies and governmental organizations, can you please confirm this? Can you please also confirm that a) None of those comments were specific about the project activities, and b) No negative or technical comments with regard to the project have been received from stakeholders.</p>	PDD section G	Check records, randomly pick names provided in the list and speak to the local stakeholders.	<p>On 20<sup>th</sup> of September 2007 press advertisement has been published in Polish and English in local newspaper.</p> <p>The direct invitations have been sent to the selected stakeholders according to the attached list ( ref. 10). The list of invited stakeholders presented in PDD differs from the original list presented by representatives of ZAT.</p> <p>In ZAT there is a set of evidences confirming that text of invitation has been announced on all ZAT internal boards, it is ; photos, film video: ref. 10 A – Logbook of outgoing letters from the company; Ref 11 – example of official letters sent to stakeholders; Ref . 15 – example of poster; Ref 15A- scan of the newspaper with advertisement; Ref 12 – report from stakeholder meeting</p> <p>I had contact with one stakeholder Urząd Miasta Tarnowa – Mr Ryszard Ścigały – the president of the City – he has confirmed that they have received invitation – the notice about it wa made in President’s calendar.</p> <p>Regarding negative or technical comments made during the stakeholder meeting on 9 October 2007 – in my opinion there are not</p>	OK	OK



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			such opinion – but please look through the 3 chapter – Questions and answers ( ref 12.)		
8. Has an AMS system already been installed in the plant?	PDD, AM0034	Site Visit	<p>Yes.</p> <p>As an evidence documents ZAT delivered:</p> <ol style="list-style-type: none"> <li>1. report of acceptance of AMS installation in period 29.05.2007 – 24.07.2007 (Ref 9 – Investment work nr 2799-00 I 2710-00) dated on 21.08.2007</li> <li>2. email from TUV (Ref.1) – advising effective starting date of AMS ( although ZAT started the campaign from July 7, 2007, AMS started to record all necessary data from July 30, 2007 due to delay of delivery of hardware and technical problems.</li> <li>3. Declaration of Conformity – measurements Instrumentation Check of conformity with the methodology AM0034 – date of test 25-27.07.2007</li> <li>4. Certificate – test of a software ad on "D-EMS 2000 CDM" for the suitable tested data collecting system. (ref 4)</li> </ol>	Accepted only due to the system has been installed.	OK

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