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Verification Report

Lovochemie a.s.

Second Periodic Verification

of the agreed JI project

Nitrous Oxide Emission Reductions at Lovochemie - CZ

Report No.: 1125273

March 14, 2008

TÜV SÜD Industrie Service GmbH
Carbon Management Service
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Contract approved by:	Javier Castro
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Summary:

The certification body "Climate and Energy" of TÜV SÜD Industrie Service GmbH has been ordered by TÜV NORD to carry out the initial and the first periodic verification of the registered JI project "**Nitrous Oxide Emission Reductions at Lovochemie - CZ**".

The verifier confirms that the project is implemented as planned and described in validated project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project does generate GHG emission reductions.

The verifier can confirm that the GHG emission reduction for the whole monitoring period is calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the valid and registered project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated we confirm the following statement:

Reporting period: From January 01, 2007 to December 31, 2007

Verified emission reductions in the reporting period:

Emission reductions: 267 466 t CO_2 equivalents

The verification team also determined some few areas of risks for the project in the context of the management/operation system and of quality assurance. Issues indicated as "Forward Action Request" should be submitted as indispensable information to the verification team of the next periodic verification.

Work carried out by:	• Martin Schröder (project manager) • Konrad Tausche (ghg lead auditor, technical expert)	**Internal Quality Control by:** Javier Castro

Abbreviations

Abbreviations:

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CO2	Carbon Dioxide
CR	Clarification Request
DNA	Designated National Authority
ERPA	emission reduction purchase agreement
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Greenhouse Gas
IETA	International Emission Trading Association
IVC	Initial Verification Checklist
JI	Joint Implementation
KP	Kyoto Protocol
MP	Monitoring Plan
MVP	Monitoring and Verification Protocol
N_20	Nitrous Oxide
PDD	Project Design Document
PVC	Periodical Verification Checklist
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	UN Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

TÜV NORD has commissioned an independent verification by TÜV Industrie Service GmbH (TÜV SÜD) of its agreed JI project "Nitrous Oxide Emission Reductions at Lovochemie - CZ". The order covers a periodic verification of the project.

Verification is the periodic independent review and ex post determination by the Designated Operational Entity / Independent Entity of the monitored reductions in GHG emissions during the defined verification period.

This report summarizes the findings of the second periodic verification. It is based on the Periodic Verification Report Template Version 3.0, December 2003 as a part of the Validation and Verification Manual (VVM) published by International Emission Trading Association (IETA).

The periodic verification has been performed including a desk review of the project documents (PDD, monitoring plan, validation report, monitoring manual, monitoring report and its revision and further documentations) and an on-site audit.

The results of the determination were documented by DNV in the validation report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. 2005-1181, rev. 1, dated 12/10/2005.

The results of the Initial and First Periodic Verification were documented by TÜV SÜD in the verification report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. Report No. 976314, March 27, 2007.

The verification team consists of the following personnel:

Martin Schröder	TÜV SÜD, Munich	Project Manager
Konrad Tausche	TÜV SÜD, Munich	GHG Auditor and Expert

1.1 Objective

The objective of verification can be divided in Initial Verification and Periodic Verification:

- Initial Verification:

The objective of an initial verification is to verify that the project is implemented as planned, to confirm that the monitoring system is in place and fully functional, and to assure that the project will generate verifiable emission reductions. A separate initial verification prior to the project entering into regular operations is not a mandatory requirement.

- Periodic Verification:

The objective of the periodic verification is to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan; further more the periodic verification evaluates the GHG emission reduction data and express a conclusion with a high, but not absolute, level of assurance about whether the reported GHG emission reduction data is free of material misstatements and verifies that the reported GHG emission data is sufficiently supported by evidence, i.e. monitoring records. If no prior initial verification has been carried out, the objective of the first periodic verification also includes the objectives of the initial verification.

The verification shall consider both quantitative and qualitative information on emission reductions.

Quantitative data comprises the monitoring reports submitted to the verifier by the project entity. Qualitative data comprises information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, review and internal audit of calculations/data transfers.

The verification is based on criteria set by UNFCCC, the Kyoto Protocol and the JI modalities and procedures.

1.2 Scope

Verification scope is defined as an independent and objective review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions. The verification is based on the submitted monitoring report and the validated project design documents including its monitoring plan. The monitoring report and associated documents are reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. TÜV SÜD has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach in the verification, focusing on the identification of significant risks of the project implementation and the generation of emission reductions.

The verification 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 monitoring activities.

The audit team has been provided with a Monitoring Report and underlying data records on January 21, 2008, covering the period January 01, 2007 to December 31, 2007 which is also the second verification period in the agreed crediting period.. Due to a finding stated in this verification report the monitoring report had to been revised, which led to a revision 1, submitted on February 15, 2008. These documents serves as the basis for the assessment presented herewith

Studying the existing documentation belonging to this project, it was obvious that the competence and capability of the audit team performing the verification has to cover at least the following aspects:

- Knowledge of Kyoto Protocol and the Marrakech Accords
- Environmental and Social Impact Assessment
- Quality assurance
- Technical aspects of geothermal energy
- Monitoring technologies and concepts
- Political, economical and technical conditions in host country

According to these requirements TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV certification body "climate and energy":

Martin Schröder is an appointed GHG-Auditor by the certifcation body "climate and energy" of TÜV SÜD Industrie Service GmbH. Within TÜV SÜD he is responsible for the validation and verification of forestry and agriculture based GHG mitigation projects. He passed extensive internal training in the field of auditing.

Konrad Tausche the former head of department of environmental measurement technique at the Frankfurt office of TÜV SÜD Industrie Service GmbH and supports the "TÜV Carbon Management Service" in Munich since Dec. 2006. He has an academic background in physical and chemical engineering. An additional economic study was completed with the academic degree of a Master of Business Administration and Engineering (MBA and Eng.). In his experience of 15 years he verified a lot of different energy, chemical and incineration plants, emission control and mitigation projects.

The audit team covers the above mentioned requirements as follows:

- Knowledge of Kyoto Protocol and the Marrakech Accords (ALL)
- Environmental and Social Impact Assessment (ALL)
- Quality assurance (ALL)
- Technical aspects of nitric acid production (Tausche)
- Monitoring technologies and concepts (Tausche)
- Political, economical and technical conditions in host country (Tausche)

Responsibility for the internal quality control of the project was with Javier Castro, deputy head of the certification body "climate and energy".

1.3 GHG Project Description

Lovochemie a.s. produces nitric acid for further fertilizer production. Lovochemie a.s. is the largest fertilizer producer in the Czech Republic, who produces nitric acid as part of its production process. The GHG Nitrous oxide (N2O) is a known by-product of the production of nitric acid, and has a very high Global Warming Potential. The KD6 nitric acid production plant located at Lovochemie currently has measured quantities of N2O emissions into the atmosphere.

This Joint Implementation project activity consists of Lovochemie's investment in catalytic destruction technology (High Temperature Catalytic Destruction) that will be introduced to the reactors of the nitric acid plant KD6. The project activity will not result in any revenues except the income from the sale of Emission Reductions (ERs).

Lovochemie agrees to sell a specific amount of ERs generated during the first crediting period 2005 - 2012 to Denmark and Lovochemie also agrees to use the total income from selling this specific amount of ERs to Denmark for "Greening elements". The Greening elements will be identified in close cooperation between Lovochemie and the Danish Environmental Protection Agency (DEPA), and will focus on sustainable activities at Lovochemie which will lead to a positive environmental impact.

The persons from Lovochemie who participated in the audit are listed in Annex 2 of this report.

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual (for further information see www.vvmanual.info), an initiative of all Applicant Entities and Designated Operational Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a verification protocol was customized for the project, according to the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM/JI project is expected to meet
- It ensures a transparent verification process where the verifier will document how a particular requirement has been proved and the result of the verification.

The findings are the essential part of this verification report, which is based on the verification protocols of the VVM. The completed protocol is enclosed in Annex 1 and Annex 2 to this report. The structure of the Periodic Verification Checklist tables is shown in the following:

Periodic Verification Checklist Table 1: Data Management System/Controls		
Expectations for GHG data management system/controls	Score	Verifiers Comments (including *Forward Action Requests*)
The project operator's data management system/controls are assessed to identify reporting risks and to assess the data management system's/control's ability to mitigate reporting risks. The GHG data management system/controls are assessed against the expectations detailed in the table.	A score is assigned as follows: **Full** all best-practice expectations are implemented. **Partial** a proportion of the best practice expectations is implemented **Limited** this should be given if little or none of the system component is in place.	*Description of circumstances and further commendation to the conclusion. This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the Verification report. The Initial Verification has additional Forward Action Requests (FAR). FAR indicates essential risks for further periodic verifications*

Periodic Verification Checklist Table 2: GHG calculation procedures and management control testing		
Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
Identification of potential reporting risks based on an assessment of the emission estimation procedures. Identification of key source data. Focus on those risks that impact the accuracy, completeness and consistency of the reported data.	Identification of the key controls for each area with potential reporting risks. Assessment of adequacy of the key controls and eventually test that the key controls are actually in operation. Internal controls include, Understanding of responsibilities and roles, Reporting, reviewing and formal management approval of data; Procedures for ensuring data completeness, conformance with reporting guidelines, maintenance of data trails etc.	Identification of areas of residual risks, i.e. areas of potential reporting risks where there are no adequate management controls to mitigate potential reporting risks Areas where data accuracy, completeness and consistency could be improved are highlighted.

Periodic Verification Checklist Table 3: Detailed audit testing of residual risk areas and random testing		
Areas of residual risks	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including *FAR*s)**
List of residual areas of risks of Periodic Verification Checklist Table 2 where detailed audit testing is necessary. *In addition, other material areas may be selected for detailed audit testing.*	*The additional verification testing performed is described. Testing may include:* ▪ *Sample cross checking of manual transfers of data* ▪ *Recalculation* ▪ *Spreadsheet 'walk throughs' to check links and equations* ▪ *Inspection of calibration and maintenance records for key equipment* ▪ *Check sampling analysis results* *Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.*	*Having investigated the residual risks, the conclusions are noted here. Errors and uncertainties are highlighted.*

Figure 1 Periodic Verification Protocol Tables

2.1 Review of Documentation and Site Visits

A part of the verification was performed as a desk review of the project documents including PDD, monitoring plan, validation report, Monitoring Manual, monitoring report(s), the calculation spreadsheet as an Excel file and further documentations. The results of the determination were documented by the results of the determination were documented by DNV in the validation report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. 2005-1181, rev. 1, dated 12/10/2005. This final validation report indicates no remaining issues.

The results of the Initial and First Periodic Verification were documented by TÜV SÜD in the verification report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. Report No. 976314, March 27, 2007.

2.2 Follow-up Interviews

The periodic audit included reviews of performance records, interviews with representatives of Lovochemie, collection of measurement data, observation of established practices and cross-checks of the provided data and data transfer to the calculation spreadsheet as well as working out of the remaining weak points. The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Lovochemie,a.s.	➢ Project design and implementation ➢ Technical equipment and operation ➢ Operation of the decomposition unit ➢ Monitoring plan and Data Handling Protocol ➢ Quality assurance and quality control ➢ Industrial activities ➢ Monitored data (special focus on the key parameter) ➢ Data uncertainty and residual risks ➢ GHG calculation ➢ Data archiving ➢ Compliance with national laws and regulations ➢ Data uncertainty ➢ Data transfer and reporting procedures ➢ Quality management ➢ Performance of maintenance work

2.3 Resolution of Corrective and Forward Action Requests

The objective of this phase of the verification is to resolve the requests for corrective actions and any other outstanding issues which needed to be clarified for TÜV SÜD's positive conclusion on the GHG emission reduction calculation. The findings raised by TÜV SÜD during the Initial Verification and/or previous Periodic Verifications were resolved during communications between the client and TÜV SÜD.

New findings and requests raised by TÜV SÜD – if any - were clearly stated during the auditing process and in the subsequent communication. To guarantee the transparency of the verification process, the responses to open findings from previous verifications as well as findings from the current periodic verification that will be given by Lovochemie are summarized and documented in the following.

3 VERIFICATION FINDINGS

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

The findings from the desk review of the final monitoring report and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Verification Protocol in annex 1.

1) Where TÜV SÜD had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Annex 1.

2) Where Clarification or Corrective Action Request has been issued, the exchanges between the Client and TÜV SÜD to resolve these Clarification or Corrective Action Request are summarized.

3) In the context of Forward Action Requests (FAR), risks have been identified, which may endanger the delivery of high quality CERs in the future, i.e. by deviations from standard procedures as defined by the MP. As a consequence, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions. Forward Action Requests are understood as recommendation for future project monitoring; they are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Annex 1.

4) The final conclusions for verification subject are presented.

The verification team wants to emphasize that the applied methodology of the project, namely NM0111, is not exact according to the later approved methodology AM0028. Aspects of NM0111 are adopted in AM0028, but also some aspects that are more related to this project are defined in approved methodology AM0034. Since NM0111 is not an approved and sufficient developed methodology like in AM0028. In case of interpretation the validated and contracted monitoring plan of PDD has been considered. However in one basic issue, where the PDD is not specific enough, the approach of the AM0034 was applied in order to verify the emission reductions in the verification period. This led to the only Corrective Action Request in this period, which finally could be resolved.

3.1 Remaining issues, CARs, FARs from previous verifications or validation

Discussion

Based on the validation report and the initial verification report the verification team identified no material missing steps. There are no remaining issues from the validation and no more remaining issues from the initial verification.
The results of the determination were documented by DNV in the validation report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. 2005-1181, rev. 1, dated 12/10/2005.

Detailed results and Summary of the initial verification are described in the verification report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. Report No. 976314, March 27, 2007.

The results of the last periodic verification are described in the same Report No. 976314, March 27, 2007.

Open Findings from previous verifications

From the previous verifications there was one open finding remaining.

Forward Action Request 1 (from the verification period #1):

The development of a documented procedure and software manual for the data export has to be completed within 4 months. Its implementation shall be part of the next verification.

Conclusion:

The requested documented procedure and software manual was provided during the on-site audit. It includes several screen-shots and instructions how to proceed the data export from the MiniTal system to the excel sheet. The stuff was found to be familiar with this procedure.

This Forward Action Request is considered to be closed.

Hence no open findings from previous verifications or validations are to be stated.

3.2 Project Implementation

3.2.1 Discussion

As stated in the monitoring report Lovochemie made some improvements of the secondary catalyst but the expected abatement rate could still not been archived in 2007. In intense discussion with the supplier further improvements are under development and further related modifications are envisaged to be performed in 2008/09.

The tail gas analyzer which has been used already before installation of the secondary catalyst is a multi-gas analyzer from Rosemount Analytics (Type NGA 2000, MTL3), the annual calibration is done by the Czech company Calibration laboratory of emissions TESO. This calibration is not an expert calibration according to EN 14181. The gas analyzer is connected to an automatic emission data processing and evaluation system called MiniTAL from Elidis s.r.o (www.elidis.cz).

The flow meter equipment (pressure transmitter) for ammonia (NH_3) is also from Emerson Process Management and it is calibrated by ZPA Nova Paka, a.s executed in accordance with Lovochemie's quality management system.

The nitric acid production is determined through the level changes in the tanks. The level of the each tank is measured with a self calibrating APEX^{TM} Sentry radar system from Emerson Process Management.

The production of nitric acid production is determined per shift. Shift changes are at 5:00 am, 13:00 and 21:00.

Some data which are processed at MiniTAL are also processed in the DCS in parallel. The monitoring is considered as a continuous measuring. Signals are recorded either once per 10 sec. (DCS) or average gas concentrations once per minute at MiniTAL; this is considered as continuous.

The flow of NH3 is monitored with internal process control system (internally called DCS). However there were some inconsistencies of the data transfer which finally led to an Forward Action Request:

3.2.2 Findings

Forward Action Request #2:

By verifying the data transfer of the provided ammonia flow in the DCS and the Monitoring Report an inconsistency was found. The reason for this (limited to March 2007) could be clarified on-site and was caused by a change in the data collecting system with an impact on the data compression. It can be confirmed by the verifier, that this inconsistency has no impact on the calculation of the emission reductions. This is caused by the fact, that the stated ammonia flow values as given in the monitoring report are not used for this calculation.
In order to gain more transparency in the data flow a modification of the data transfer is necessary. The ammonia flow raw data, which is used for the calculation of the emission reductions, must be indicated in the Monitoring Report.
The data is available in the MiniTal - System.

3.2.3 Conclusion

This Forward Action Request is to be considered in the next verification.

3.3 Internal and External data

3.3.1 Discussion

Internal data can be identified as: Amount of produced nitric acid, amount of ammonia, flow of total gas in the tail gas, concentration of N2O and oxygen in the tail gas. The data are measured as described above. Details can be seen in the attachments.

External data can be identified as: national regulations to mandatory measures regarding N2O reduction and additional regulations concerning the NOx emission level. It an essential task of the environmental manager Ms. Stanislava Kadavá to follow national regulations.
She is in periodical contact with the local authorities as demonstrated by several e-mail communications.

At the time of verification national regulations are neither in place nor discussed in the Czech Republic.

3.3.2 Findings

None

3.3.3 Conclusion

The sources of internal or external data and its use are without any doubts. The project complies with the requirements.

3.4 Environmental and Social Indicators

3.4.1 Discussion

No environmental and social indicators are defined in the monitoring plan. No additional negative environmental and social indicators were identified. National and EU wide legal standards ensure that environmental effects will be minimized.

3.4.2 Findings

None

3.4.3. Conclusion

The project complies with the requirements.

3.5 Management and Operational System

3.5.1 Discussion

Lovochemie has an implemented and certified quality and environmental management system. It has been certified in 2007 by TÜV Nord Czech, s.r.o.TÜV. The project related processes were already before project implementation part of usual operational documentation and processing. Regarding monitoring, calibration and maintenance instructions are included in the existing

quality management system as far as necessary. Ms. Stanislava Kadavá (environmental manager) takes care about national regulations.

Procedures for calibration and maintenance of used equipment are embedded in the certified quality management system. Lovochemie is certified by TÜV Nord against ISO 9000 and 14000 standard. There are ISO 9000/14000 embedded procedures for project related reporting. Tasks and responsibilities are defined in the monitoring plan.

The involved people are enough qualified due to their specific education or specific trainings. In case that people participated in a special training it is documented according to the quality management system. For example the internal adjustment of the gas analyser is preformed only by technicians that have been trained by the supplier.

During onsite visits Lovochemie explained that in case of missing data due to equipment problems will substituted by average data from previous days. That procedure is part of the monitoring plan. However, Lovochemie emphasized that this situation has never happened before.

In the current verification any lack of data or records were not identified.

3.5.2 Findings

None

3.5.3 Conclusion

The internal adjustment is performed according to supplier's guidance by trained and qualified technicians. Neither the applied methodology NM0111 nor the monitoring plan commonly agreed by parties requires that an external laboratory has to be certified according to ISO 17025 or that ISO 14181 has to be respected. Furthermore, the validator of the project emphasized that issue also and the agreement was signed on that basis.

The project complies with the requirements.

3.6 Completeness of Monitoring

3.6.1 Discussion

The reporting procedures reflect the monitoring plan completely. All parameters were determined as prescribed.

No changes to the monitoring plan are required.

3.6.2 Findings

None.

3.6.3 Conclusion

The project complies with the requirements.

3.7 Accuracy of Emission Reduction Calculations

3.7.1 Discussion

According to the well documented procedures and the well documented calibrations and maintenance of used equipment the residual main risk can be identified in human errors in practise and systematic errors. Reporting risks due to accuracy of used equipment seems not to be relevant as those uncertainties have been considered in determination of the baseline factor of t N_2O/ t HNO_3. The applied equipment has not changed since that time.

- Risk of systematic errors:

  The submitted data records indicates that the daily period of nitric acid production and flow of ammonia dos not match with recorded data from tail gas measurements. The reason for that is that the data of nitric acid is determined per each shift and is summarized for 3 shifts running from 5 am to 5 am. The data from the tail gas, however, are determined automatically with the emission control system MiniTAL. For legal purposes the MiniTAL measures and submits data from 0:00 to 24:00.

- Human errors

  Human errors can be reasoned due to lack of trainings, qualification or simply because of carelessness.

The project owner is aware of the risk of this systematic error (different daily recording periods). However there is a lack of clarity in the provided documents which led to a clarification request.

Staffs that are responsible for internal maintenance have been trained by the equipment supplier. Training documentation has been provided. The documentation of conducted own adjustments indicates that it was done by the same trained persons. The frequency of internal adjustment and maintenance was performed every week. The crosscheck between the reference values of the testing gas and the data verified on-site showed, that the stuff is enough experienced.

As mentioned above the data export is sensitive. The verification team emphasize the application of the documented procedures to ensure that data are exported correctly and always according to this established procedure.

The calculation of the emission reductions is based on the difference between the emission factor of the baseline campaign and the emission factor of the project campaign. The PDD is not specific enough to describe the procedure of the calculation, if the project campaign length is shorter the normal campaign length (in this cast the baseline campaign length). Hence the approach of the AM0034 was applied in order to verify the emission reductions in the verification period. This led to a Corrective Action Request in this period, which finally could be resolved. The additional stated Forward Action Request is a consequence of this and can be considered in the next verification audit.

3.7.2 Findings

Corrective Action Request #1:

Due to the approved methodology AM0034 the baseline emission factor - once determined - is only valid if the project campaign length is not shorter than the baseline campaign.
If the project campaign is shorter (which means less production of nitric acid in the project campaign), the baseline emission factor must be recalculated.
This is considered as an essential fact on determining the emission reductions in the verification period.

The Monitoring Report has to be revised in order to take the recalculation of the baseline emission factor for each project campaign into account.
For the sake of transparency the information concerning the period and amount of nitric acid production during the project campaigns should be included in the Monitoring Report, too.

Response:

The Monitoring Report has been revised (Revision 1) in accordance with CAR#1– the baseline emission factor and ERs for each project campaign were recalculated, also the information concerning the period and amount of the nitric acid production during the project campaigns was included.

Conclusion:

The revised Monitoring Report was provided.
The required recalculation as well as the underlying information is included. The revised calculation of the Emission Reductions as well as the recalculation of the Baseline Emission Factor was assessed by the verifying team and found to be correct.

The Corrective Action Request is considered to be closed.

Forward Action Request #3

In the excel-calculation, which is attached to the Monitoring Report the applied baseline emission factor as well as the nitric acid production for each campaign and the part of nitric acid which was produced in the verification period should be indicated more transparently.

Conclusion:

This Forward Action Request is to be considered in the next verification.

Clarification Request #1:

The production of nitric acid is determined per shift. Shift changes are at 5:00 am, 13:00 and 21:00. The daily production of nitric acid is calculated as the sum of the three shifts productions (from 5:00 a.m. to 05:00 a.m. of the next day). The MiniTal however records the daily data from a period from 00:01 a.m. to 00:00 p.m. due to legal requirements (NOx-emissions).

Especially in periods of start up or shut down of the plant the provided figures were assessed by the verifier and found to be reasonable.
However a clear statement is required in the Monitoring Report, because these different integration periods of the two systems can lead to figures in the excel sheet, which are capable to be misunderstood.

Response:

A clear statement (incl. examples) was implemented into the Revision 1 of the Monitoring Report

Conclusion:

The revised Monitoring Report clearly indicates the project specific approach and explains the impact on the provided figures in general and by the help of examples sufficiently.

This Clarification Request is considered to be closed.

3.7.3 Conclusion

The project complies with the requirements.
The Forward Action Request is to be considered in the next verification.

3.8 Quality of Evidence to Determine Emission Reductions

3.8.1 Discussion

Concerning verification the calculation of emission reductions is based on internal data. The origin of those data was explicitly checked. Further on, entering and processing of those data in the monitoring workbook Excel sheet was checked where predefined algorithms compute the annual value of the emission reductions. All equations and algorithms used in the different workbook sheets were checked. Inspection of calibration and maintenance records for key equipment was performed for all relevant meters.

Human errors due to carelessness are tried minimized due to internal check routines.
Nevertheless the verification team verified randomly the original measured and stored data and compared it with reported ones.

3.8.2 Findings

None

3.8.3 Conclusion

The project complies with the requirements.

3.9 Management System and Quality Assurance

3.9.1 Discussion

Due to the straightforward approach for calculating GHG emission reductions the existing management system is appropriate and quality assurance is guaranteed for this verification period. However there is one issue which must be fixed as a Forward Action Request to ensure the reliability of the expected emission reductions in the consecutive verification periods.

3.9.2 Findings

Forward Action Request #1:

Due to information from the project owner the project management will be restructured from the end of this verification period. It`s planned to integrate the processes in the daily routines of the plant responsibilities. However it is crucial to install a project management which is responsible and clearly assigned to the specific duties of this abatement project. Especially because very specific and overlapping duties related to the existent structure are concerned by producing reliable emission reductions, a clear responsibility must be installed and documented in the internal monitoring plan.

3.9.3 Conclusion

This Forward Action Request is to be considered in the next verification.

4. PROJECT SCORECARD

The conclusions on this scorecard are based on the revised CDM monitoring report.

Risk Areas		Conclusions			Summary of findings and comments
		Baseline Emissions	Project Emissions	Emission Reductions	
Completeness	Source coverage/ boundary definition	✓	✓	✓	All relevant sources are covered by the monitoring plan and the boundaries of the project are defined correctly and transparently.
Accuracy	Physical Measurement and Analysis	✓	✓	✓	State-of-the-art technology is applied in an appropriate manner. Appropriate back-up solutions are provided.
	Data calculations	✓	✓	✓	Emission reductions are calculated correctly.
	Data management & reporting	✓	✓	✓	Data management and reporting were found to be satisfying. Potential for improvement is indicated by FARs 1
Consistency	Changes in the project	✓	✓	✓	Results are consistent to underlying raw data.

5 VERIFICATION STATEMENT

TÜV SÜD Industrie Service GmbH has performed a second periodic verification of the agreed JI project: **Nitrous Oxide Emission Reductions at Lovochemie - CZ**. The verification is based on requirements of the UN Framework Convention on Climate Change (UNFCCC). In this context, the relevant documents are the "Marrakech Accords".

The management of Lovochemie a.s. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the document Monitoring Report, revision 1 issued on 15th February 2008.

The verifier confirms that the project is implemented as planned and described in validated project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project does generate GHG emission reductions.

The verifier can confirm that the GHG emission reduction for the whole monitoring period is calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the valid and registered project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: From January 01, 2007 to December 31, 2007

Verified emission reductions in the reporting period:

Emission reductions: 267 466 t CO_2 equivalents

The verification team also determined some few areas of risks for the project in the context of the management/operation system and of quality assurance. Issues indicated as "Forward Action Re-quest" should be submitted as indispensable information to the verification team of the next periodic verification.

Munich, March 14, 2008

Javier Castro

Deputy Head of the Certification Body "Climate and Energy"

Munich, March 14, 2008

Martin Schröder

Project Manager

ANNEX 1: PERIODIC VERIFICATION PROTOCOL

Table 1: Data Management System/Controls

The project operator's data management system/controls are assessed to identify reporting risks and to assess the data management system's/control's ability to mitigate reporting risks. The GHG data management system/controls are assessed against the expectations detailed in the table. A score is assigned as follows:

- Full - all best-practice expectations are implemented.
- Partial - a proportion of the best practice expectations is implemented
- Limited - this should be given if little or none of the system component is in place.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
1. Defined organisational structure, responsibilities and competencies		
1.1. Position and roles	**Full**	Position and role of each person in the GHG data management process was clearly defined and implemented in the verification period, from raw data generation to submission of the final data. ***Forward Action Request #1 (FAR#1)*** Due to information from the project owner the project management will be restructured from the end of this verification period. It`s planned to integrate the processes in the daily routines of the plant responsibilities. However it is crucial to install a project management which is responsible and clearly assigned to the specific duties of this abatement project. Especially because very specific and overlapping duties related to the existent structure are concerned by producing reliable emission reductions, a clear responsibility must be installed and documented in the internal monitoring plan.
1.2. Responsibilities	**Full**	Specific monitoring and reporting tasks and responsibilities are not included in job descriptions or special instructions for employees. However, operational monitoring and responsibilities are covered by the existing quality management system. *In addition see FAR #1.*

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
1.3. Competencies needed	**Full**	Competencies needed for each aspect of the GHG determination process are analysed. Personnel competencies are assessed and training programme implemented as required. The involved people are enough qualified due to their specific education or specific trainings. In case that people participated in a special training it is documented according to the quality management system. For example the internal adjustment and maintenance work of the gas analysers is performed only by technicians that have been trained by the supplier. The maintenance logbook of the analysers demonstrates this fact.
2. Conformance with monitoring plan		
2.1. Reporting procedures	**Full**	Reporting procedures should reflect the monitoring plan content in the PDD. The validated monitoring plan is part of the ERPA. Deviations from the monitoring plan can not be identified; internal monitoring plan concretise the specific reporting.
2.2. Necessary Changes	**Full**	Necessary changes to the monitoring plan as stated in the PDD are not identified. However the responsibilities which are to be defined in the consecutive verification period must be described in the internal monitoring plan (*see FAR#1*).

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
3. Application of GHG determination methods		
3.1. Methods used	**Full**	There are documented description of the methods used to determine GHG emissions and justification for the chosen methods. When the PDD was validated by DNV in 2005 the applied methodology was not finally approved by the UNFCCC CDM Executive Board. The applied methodology NM0111 divers from the final approved methodology AM0028. Meanwhile it's clarified that for this kind of projects the approved methodology AM0034 is the most applicable one. On the other hand the project does not fall under CDM, but rather on JI track one once the requirements of the Kyoto – Protocol are fulfilled by host country. The recent status is a voluntary emission reduction purchase agreement between the government of the Kingdom of Denmark and Lovochemie, a.s. Since the validated PDD including the project specific monitoring plan is part of the ERPA and considering that the project shall use track one, agreed by the Danish and Czech government any deviations from existing approved methodologies have not been considered. The verification team confirms that Lovochemie a.s. respect the agreed monitoring method described in the monitoring plan of validated PDD.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
3.2. Information/process flow	**Full**	Monitored raw data are recorded automatically in three data base system. Nitric acid production is reported from the shift leader daily for transferring the data into the controlling system SAP. Pollution data are recorded by emission data system, called MiniTAL from Elidis s.r.o. Ammonia data are monitored and recorded in the operational Data Control System, called DCS. For reporting of emission reductions data from the data base systems are exported and calculated in Excel as attached in the monitoring report.
3.3. Data transfer	**Full**	The data transfer is highly automated. Before manual records like nitric acid production will be transferred into the SAP-system it will be checked and cross balanced from different persons. The second manual data transfer is by exporting stored data from the data bases into the appropriate Excel sheet. Internal verification procedures ensure also, that this transfer will be done correctly. In order to check the fixed concentration of the produced Nitric acid the operation logbook was crosschecked on several days. The fixed concentration of 60% as stated in the PDD based on the specification of the plant is reasonable. The data transfer of the daily and yearly production into the SAP system and further into the excel sheet as well as the data transfer from the analysers to the MiniTal system was assessed by the verifier. There are no inconsistencies to be stated. For JI project purposes the data from SAP, MiniTAL as well as from DCS are exported manually into Excel.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
		During the onsite visit of the initial and first verification the demonstration of that export indicated that the procedure has an inherent risk to get wrong data, if the staffs are not aware about it. This resulted in a Forward Action Request that a documented procedure and software manual for the data export has to be completed. It can be confirmed, that this manual meanwhile is developed and describes the procedure sufficiently. ***Forward Action Request #2 (FAR#2)*** By verifying the data transfer of the provided ammonia flow in the DCS and the Monitoring Report an inconsistency was found. The reason for this (limited to March 2007) could be clarified on-site and was caused by a change in the data collecting system with an impact on the data compression. It can be confirmed by the verifier, that this inconsistency has no impact on the calculation of the emission reductions. This is caused by the fact, that the stated ammonia flow values as given in the monitoring report are not used for this calculation. In order to gain more transparency in the data flow a modification of the data transfer is necessary. The ammonia flow raw data, which is used for the calculation of the emission reductions, must be indicated in the Monitoring Report. The data is available in the MiniTal – System.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
3.4. Data trails	**Full**	The monitoring is considered as a continuous measuring. Signals are recorded either once per 10 sec. (DCS) or average gas concentrations once per minute at MiniTAL . See comments in 3.3 and 3.2 above as well as comments in the previous initial verification checklist. The nitric acid production is determined in each shift of the nitric acid production unit. In operational notes those amount is recorded. At the end of each shift the leader of the shift has to aggregate the operational data to a second sheet. Nitric acid that is pumped to other units is measured and balanced against the further nitric acid production unit. The balanced data are typed into the SAP system. ***Clarification Request #1 (CR#1):*** The production of nitric acid is determined per shift. Shift changes are at 5:00 am, 13:00 and 21:00. The daily production of nitric acid is calculated as the sum of the three shifts productions (from 5:00 a.m. to 05:00 a.m. of the next day). The MiniTal however records the daily data from a period from 00:01 a.m. to 00:00 p.m. due to legal requirements (NOx-emissions). Especially in periods of start up or shut down of the plant the provided figures were assessed by the verifier and found to be reasonable. However a clear statement is required in the Monitoring Report, because these different integration periods of the two systems can lead to figures in the excel sheet, which are capable to be misunderstood.
4. Identification and maintenance of key process parameters		
4.1. Identification of key parameters	**Full**	The key parameters are defined clearly in the monitoring plan: Amount of produced nitric acid, amount of ammonia, flow of total gas in the tail gas, concentration of N2O and oxygen in the tail gas. The data are measured as described above.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
4.2. Calibration/maintenance	**Full**	Procedures for calibration and maintenance of used equipment are embedded in the certified quality management system. Lovochemie is certified by TÜV Nord against ISO 9000 and 14000 standard. The valid certificate was provided. Responsible for calibration and maintenance of used equipment is Ms. Plackova. It can be confirmed that the calibration/maintenance work has been performed due to the requirements of the manufacturers during the verification period. For the sake of clarification neither the applied methodology NM0111 nor the monitoring plan - commonly agreed by parties - requires that an external laboratory has to be certified according to ISO 17025 and no requirement is stated to apply EN 14181. Furthermore, the validator of the project emphasized that issue also and the agreement was signed on that base. All equipment is checked by certified external companies according to a given period as documented by several maintenance reports. Beyond that the gas analysers are adjusted and maintained internally by trained people at least once per week as stated in the maintenance logbook. The certificates of the applied testing gases were provided to the verifier and found to be valid over the whole period. The established procedures minimize the risk that required adjustments and calibrations will be missed.

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
5. GHG Calculations		
5.1. Use of estimates and default data	**Full**	For estimating the emission reduction two estimates and default values are applied: Global warming potential of N_2O, which is 310 CO_{2e} and the validated and agreed baseline factor of 7,52 kg N_2O / t HNO_3 ***Corrective Action Request #1 (CAR#1):*** Due to the approved methodology AM0034 the baseline emission factor - once determined - is only valid if the project campaign length is not shorter than the baseline campaign. If the project campaign is shorter (which means less production of nitric acid in the project campaign), the baseline emission factor must be recalculated. This is considered as an essential fact on determining the emission reductions in the verification period. The Monitoring Report has to be revised in order to take the recalculation of the baseline emission factor for each project campaign into account. For the sake of transparency the information concerning the period and amount of nitric acid production during the project campaigns should be included in the Monitoring Report, too.
5.2. Guidance on checks and reviews	**Full**	Specific documented guidance on checks and reviews are not identified. However, management reviews were performed, covering the whole verification period. In addition general established routines for internal verification ensure high reliable calculation and reporting.
5.3. Internal verification / validation	**Full**	The performance of internal audits regarding the project activity and emission reduction monitoring has been documented. See also 5.2

Expectations for GHG data management system/controls	Score	Verifiers Comments (including Forward Action Requests)
5.4. Data protection measures	**Full**	The quality management system as well as the real handling demonstrated that each relevant data are save. On the one hand specific skills for using the data bases are required and on the other hand defined quality assurance procedures are in place. Computer and electronic equipment are protected physically. Different data back up systems of using CDs, hardcopies are an additional measure of data protection.
5.5. IT systems	**Full**	Following IT systems and software solutions are used for data monitoring, recording and reporting: o MSOffice (Microsoft), o MiniTAL by ELIDIS, o Process control system DCS Delta V by Emerson

Table 2: GHG calculation procedures and management control testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
According to the well documented procedures and the well documented calibrations and maintenance of used equipment the residual main risk can be identified in human errors in practise and systematic errors. Reporting risks due to accuracy of used equipment seems not to be relevant as those uncertainties have been considered in determination of the baseline factor of t N_2O/ t HNO_3. The applied equipment has not changed since that time. o Risk of systematic errors: The submitted data records indicates that the daily period of nitric acid production and flow of ammonia dos not match with recorded data from tail gas measurements. The reason for that is that the data of nitric acid is determined per each shift and is summarized for 3 shifts running from 5 am to 5 am. The data from the tail gas, however, are determined automatically with the emission control system MiniTAL. For legal purposes the MiniTAL measures and submits data from 0:00 to 24:00.	The project owner is aware of the risk of this systematic error (different daily recording periods). Staffs that are responsible for internal maintenance have been trained by the equipment supplier. Training documentation has been provided. The documentation of conducted own adjustments indicates that it was done by the same trained persons. The frequency of internal adjustment and maintenance was performed every week. The crosscheck between the reference values of the testing gas and the data verified on-site showed, that the stuff is enough experienced. As mentioned above: the export of data is not easy and needs special know how of the data base. For that reason the stored and archived original data has been checked data and the process of exporting has been demonstrated. Human errors due to carelessness are tried minimized due to internal check routines. Nevertheless the verification team verified randomly the original	As mentioned above and in the left column: the data export is sensitive. The verification team emphasize the application of the documented procedures to ensure that data are exported correctly and always according to this established procedure.

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks
o Human errors Human errors can be reasoned due to lack of trainings, qualification or simply because of carelessness.	measured and stored data and compared it with reported ones.	

Table 3: Detailed audit testing of residual risk areas and random testing

Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
The recalculation of the baseline emission factor for the project campaign, which is overlapping into the next verification period must be also considered in the consecutive verification. The baseline emission factor of this project campaign and so the achieved emission reductions from a period of 28.11.07 – 31.12.07 must be revised accordingly. The real nitric acid production of this campaign and hence the project emission factor can only be determined after the end of this campaign. Finally the realized difference of the emission reductions from the period of 28.11.07 – 31.12.07 will be taken into account within the next verification.	A revised Monitoring Report (Rev.1) has been submitted. The recalculation of the baseline emission factor as well as the production of each campaign has been assessed intensely.	***Forward Action Request #3 (FAR#3)*** In the excel-calculation, which is attached to the Monitoring Report the applied baseline emission factor as well as the nitric acid production for each campaign and the part of nitric acid which was produced in the verification period should be indicated more transparently.

Table 4: Compilation of open issues

Corrective and Forward Action Requests by audit team	Summary of project owner response	Audit team conclusion
Corrective Action Request #1 (CAR#1): Due to the approved methodology AM0034 the baseline emission factor - once determined - is only valid if the project campaign length is not shorter than the baseline campaign. If the project campaign is shorter (which means less production of nitric acid in the project campaign), the baseline emission factor must be recalculated. This is considered as an essential fact on determining the emission reductions in the verification period. The Monitoring Report has to be revised in order to take the recalculation of the baseline emission factor for each project campaign into account. For the sake of transparency the information concerning the period and amount of nitric acid production during the project campaigns should be included in the Monitoring Report, too.	The Monitoring Report has been revised (Revision 1) in accordance with CAR#1– the baseline emission factor and ERs for each project campaign were recalculated, also the information concerning the period and amount of the nitric acid production during the project campaigns was included.	The revised Monitoring Report was provided. The required recalculation as well as the underlying information is included. The revised calculation of the Emission Reductions as well as the recalculation of the Baseline Emission Factor was assessed by the verifying team and found to be correct. The Corrective Action Request is considered to be closed.

Corrective and Forward Action Requests by audit team	Summary of project owner response	Audit team conclusion
Clarification Request #1 (CR#1): The production of nitric acid is determined per shift. Shift changes are at 5:00 am, 13:00 and 21:00. The daily production of nitric acid is calculated as the sum of the three shifts productions (from 5:00 a.m. to 05:00 a.m. of the next day). The MiniTal however records the daily data from a period from 00:01 a.m. to 00:00 p.m. due to legal requirements (NOx-emissions). Especially in periods of start up or shut down of the plant the provided figures were assessed by the verifier and found to be reasonable. However a clear statement is required in the Monitoring Report, because these different integration periods of the two systems can lead to figures in the excel sheet, which are capable to be misunderstood.	A clear statement (incl. examples) was implemented into the Revision 1 of the Monitoring Report	The revised Monitoring Report clearly indicates the project specific approach and explains the impact on the provided figures in general and by the help of examples sufficiently. This Clarification Request is considered to be closed.
Forward Action Request #1 (FAR#1) Due to information from the project owner the project management will be restructured from the end of this verification period. It`s planned to integrate the processes in the daily routines of the plant responsibilities. However it is cru-		To be considered in the next verification

Corrective and Forward Action Requests by audit team	Summary of project owner response	Audit team conclusion
cial to install a project management which is responsible and clearly assigned to the specific duties of this abatement project. Especially because very specific and overlapping duties related to the existent structure are concerned by producing reliable emission reductions, a clear responsibility must be installed and documented in the internal monitoring plan.		
Forward Action Request #2 (FAR#2) By verifying the data transfer of the provided ammonia flow in the DCS and the Monitoring Report an inconsistency was found. The reason for this (limited to March 2007) could be clarified on-site and was caused by a change in the data collecting system with an impact on the data compression. It can be confirmed by the verifier, that this inconsistency has no impact on the calculation of the emission reductions. This is caused by the fact, that the stated ammonia flow values as given in the monitoring report are not used for this calculation. In order to gain more transparency in the data flow a modification of the data transfer is necessary. The ammonia flow raw data, which is used for the calculation of the emission reduc-		To be considered in the next verification

Corrective and Forward Action Requests by audit team	Summary of project owner response	Audit team conclusion
tions, must be indicated in the Monitoring Report. The data is available in the MiniTal – System.		
Forward Action Request #3 (FAR#3) In the excel-calculation, which is attached to the Monitoring Report the applied baseline emission factor as well as the nitric acid production for each campaign and the part of nitric acid which was produced in the verification period should be indicated more transparently.		To be considered in the next verification

ANNEX 2: INFORMATION REFERENCE LIST

Reference No.	Document or Type of Information
1	PDD version 2.0, validated by DNV
2	PDD version 2.1, annex one of ERPA
3	DNV in the validation report: "NITROUS OXIDE EMISSION REDUCTIONS AT LOVOCHEMIE - CZ", report no. 2005-1181, rev. 1, dated 12/10/2005
	On-site and on-line interviews conducted on February 07, 2008 by TÜV SÜD Verification team: Mr. Martin Schröder — Project Manager — TÜV SÜD Mr. Konrad Tausche — GHG Auditor — TÜV SÜD Mr. Petr Matushinsky — Auditor — TÜV Nord Interviewed persons: Mr. Petr Cermanek — Plant Manager of HNO3-plant KD 6 — LOVOCHEMIE Mr. Petr Peterka — Specialist on measurement and automation — LOVOCHEMIE Mrs.Stanislava Kadava — Head of Environmental department — LOVOCHEMIE Mr D. Tupec — Technician in Environmental department — LOVOCHEMIE Mr. Vaslav Imid — Technician in HNO3-plant KD 6 — LOVOCHEMIE Mr. Antonin Galle — Assistant in HNO3-plant KD 6 — LOVOCHEMIE
4	Emission reduction purchase agreement (ERPA),
5	Approved baseline and monitoring methodology AM0034
6	Specific Monitoring plan of N2O emissions from the KD6 nitric acid production plant, internal document of Lovochemie, a.s.
7	Monitoring Report of 01. January 2007 – 31. December 2007, Lovochemie, issued on 15. January 2008
8	Monitoring Report of 01. January 2007 – 31. December 2007, Revision 1 Lovochemie, issued on 15. February 2008

Reference No.	Document or Type of Information
9	Excel calculation file, covering the period from 01. January 2007 – 31. December 2007
10	Excel calculation file, covering the period from 01. January 2007 – 31. December 2007, rev. 1
11	Participation list of performed audit on 07.02.2008 onsite at the utility of Lovochemie a.s
12	General quality assurance procedure for calibration and maintenance of equipment, document no. TOP-B05-66
13	Quality management handbook for ISO 9000 and 14000
14	Contract between Lovochemie, SFZP and Czech environmental ministry signed on 5.10.07
15	"Katalog kvalifikačních požadavků" (Catalogue of qualification requirements) for all positions in Lovochemie and TOP C04 - 38 "Výcvik" (Training)
16	"Popis pracovní funkce" (Description of a job position)
17	Certificates of span gases over the verification period for O2 and N2O
18	Procedure for data transfer and calculation (data file)
19	Mass flowmeter calibration certificate issued by micro motion
20	Print out of production data from SAP System
21	Production log sheet signed by operator
22	Calibration certificate issued by TESO on 4.12.07 (covering O2-analyser)
23	Calibration certificate issued by TESO on 4.12.07 (covering N2O-analyser)
24	Specification of KD-6 indicating the design capacity and concentration of produced nitric acid (doc: 100670-MS10-1299-02, Rev.2)
25	Training confirmation signed by Emerson Process Management
26	Minutes of Meeting : Management review issued on 14.01.08 (covering period 7-12/07)
27	Minutes of Meeting : Management review issued on 09.07.07 (covering period 1-6/07)
28	Valid certificate for ISO 14001:2004 and ISO 9001:2000
29	Certificate of ammonia flow metering equipment issued by ZPA Nova Paka, a.s.
30	Maintenance logbook of analyzers