



JI DETERMINATION REPORT FORM

(version 02)

(to be completed by an AIE requesting the publication of a determination pursuant to paragraph 33 of the JI guidelines)

Accredited independent entity (AIE) submitting form Det Norske Veritas Certification AS (DNV)

Proposed JI activity

Reference number and title of proposed JI activity 0137: Joint Implementation project aimed at N₂O emissions reduction by installation of secondary catalyst inside ammonia oxidation reactors at 3 nitric acid production plants NA2, NA3 and NA4 of Azomures SA company, situated at Târgu Mures, Romania

Host Party(ies) Romania

Parties involved in the JI activity France

Coordinating entity (applicable to JI PoA only) N.A.

Project participants Azomures SA; Vertis Environmental Finance Ltd

Type of JI activity: large scale small scale LULUCF PoA

Brief description of the JI activity

The purpose of the project is the reduction of nitrous oxide emissions from the three nitric acid production plants NA2, NA3 and NA4 at the Azomures SA (“Azomures” or “the Company”). The company is situated in Târgu Mures, Mures county, Romania.

Azomures reduces N₂O emissions by installing secondary N₂O reduction catalyst underneath the primary catalyst precious metal catching and catalytic gauzes package in the ammonium burner. This N₂O abatement technology is applied at three nitric acid production plants NA2, NA3 and NA4. Secondary catalysts are installed in all ammonia oxidation reactors of three nitric acid plants.

Determination report

Please confirm that all requirements of Article 6 of the Kyoto Protocol, the JI guidelines and further relevant requirements defined by the CMP or the JISC with regard to determinations pursuant to paragraph 33 of the JI guidelines are met:

- Yes
 No

General information on determination

Please describe:

- The scope of the determination process, including all documentation that has been reviewed and list the names of persons interviewed during the determination process, as applicable;
- The AIE’s determination team, including a list of all persons involved in the determination process and a description of the functions assumed.

The determination scope is defined as an independent and objective review of the project design document and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The determination was performed on the basis of UNFCCC criteria for Joint Implementation as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation and the subsequent follow-up interviews have provided

DNV with sufficient evidence to determine the fulfilment of stated criteria.

The following documents have been reviewed during determination:

- Vertis Environmental Finance Zrt.: *Project design document for the " Joint Implementation project aimed at N₂O emissions reduction by installation of secondary catalyst inside ammonia oxidation reactors at 3 nitric acid production plants NA2, NA3 and NA4 of Azomures SA company, situated at Târgu Mures, Romania"*, version 1, dated April 2008
- Vertis Environmental Finance Kft.: *Project design document for the " Joint Implementation project aimed at N₂O emissions reduction by installation of secondary catalyst inside ammonia oxidation reactors at 3 nitric acid production plants NA2, NA3 and NA4 of Azomures SA company, situated at Târgu Mures, Romania"*, version 1.6 dated 17 August 2010
- CDM-EB: *Approved Baseline and Monitoring Methodology AM0034 - "Catalytic reduction of N₂O inside the ammonia burner of nitric acid plants"*, Version 03
- CDM-EB: *Approved Baseline and Monitoring Methodology AM0028 - "Catalytic N₂O destruction in the tail gas of Nitric Acid or Caprolactam Production Plants"*, Version 4.1
- CDM-EB: *Tool for the demonstration and assessment of additionality* Version 04
- UNFCCC: *Decision 9/CMP1 Guidelines for the implementation of Article 6 of the Kyoto Protocol* 30 March 2006
- UNFCCC: *Decision 9/CMP1 APPENDIX B Criteria for baseline setting and monitoring to Guidelines for the implementation of Article 6 of the Kyoto Protocol* 30 March 2006
- The Ministry of Environment and Permanent development of Romania: *Letter of Endorsement*, No. 375, 7 February 2008
- Project Idea Note: N₂O abatement project at Azomures SA. December 2007
- Contract for JI development between the parties Azomures SA and Vertis Environmental Finance Zrt., dated 29 September 2006
- QAL1 suitability test report for the stack gas flow meter DURAG D-FL 100. Report-#. 128CU11650 dated 29.03.1996, TÜV North
- Environment S.A: QAL 1 suitability for N₂O analyzer MIR 9000 in accordance with EN ISO14956. Dated 17 March 2008
- Airtech GmbH: Calibration report according to EN14181 Plant N2. Date of test 5 to 8 February 2008. Date of report 22 January 2009 (QAL2)
- Airtech GmbH: Calibration report according to EN14181 Plant N3. Date of test 9 to 11 July 2008. Date of report 22 January 2009 (QAL2)
- Airtech GmbH: Calibration report according to EN14181 Plant N4. Date of test 25 to 28 February 2008. Date of report 22 January 2009 (QAL2)
- Azomures SA: "The monitoring of the N₂O emissions from the nitric acid plant". Quality assurance manual. The validation of the monitoring of the data according to QAL 3 under EN 14181"
- TecnoInstrument: Training records for Azomures personnel for stack gas flow meter DFL-100
- BASF Chemical Company: "Impact of secondary N₂O abatement catalyst of ammonia efficiency – Azomures JI Project". Letter dated 10 July 2008
- BASF Chemical Company: Supply agreement for N₂O secondary abatement catalyst. 5 May 2008
- Environment S.A: Training records for Azomures personnel for Multi-gas Infra-Red GFC Analyzer MIR 9000 (N₂O analyzer)
- IPPC permit issued by Agentia Regionala Pentru Protectia Mediului Sibiu (Agency for Environmental Protection Sibiu). Nr. 4598/30.10.2007. Limits for NO_x emissions. Valid until 31.12.2015
- TÜV Nord: EN-ISO 9001:2000 Certificate. Dated 25 June 2008. Valid until 24 June 2011
- TÜV Nord: EN-ISO 14001:2000 Certificate. Dated 20 June 2008. Valid until 19 June 2011

- W.C. Heraeus GmbH: “Hereaus FTCPlus-systems/Confirmation. Letter dated 24 July 2008
 - W.C. Heraeus GmbH: Specification of Primary catalyst gauzed system used by Azomures Acid IV plant (4 reactors). FTCPlus-system
 - Ministerial Industriei Chmce Centrala Industriala Târgu Mures: Nameplate capacities: for N2, N3 and N4 nitric acid plants.
 - NA2 dated 14.10 1987: 725 metric tonnes 100% HNO₃ per day
 - NA3 dated 23.07 1987: 725 metric tonnes 100% HNO₃ per day
 - NA4 dated 23.07 1987: 750 metric tonnes 100% HNO₃ per day
- The exact template capacity is available from supplier contracts as follows:
- NA2 contract April 1966 no. 6221002: 241 425 100% HNO₃ per year.
 - NA3: Grand Paroisse: 240 000 100% HNO₃ per year
 - NA4: Ministerul Industriei Chimice Institutul de Proiectari Pentru Industria Chimica Anorganica si a ingrasamintelor IPRAN: 750 tonnes 100% HNO₃ per day
- Operation Manual Azomures Coe no.(source for permitted operating ranges):
 - IL-41-019 Nitric acid II
 - IL-41-023 Nitric acid III
 - IL-41-027 Nitric acid IV
 - IL-41-027 Nitric acid IV
 - Azomures: “Description of collection data system. Recording and printing procedures.”
 - Azomures: Excel sheet: Azomures_baseline_costs_estimates_v6.xls
 - Sibiu local environmental agency: Declaration dated 16.07.2008. Approval of project
 - Azomures Excel sheet: Preliminary determination of normal campaign lengths, CL_{normal}. (file Campaign_length_v2.xls)
 - Azomures: Excel sheet: Preliminary baseline campaign data
 - Invoices: N₂O analyser and data logger
 - Azomures: Excel sheet: Copy of Azomures_Campaigns_Catalysts.xls
 - Azomures: Description of data storage
 - Deutscher AkkreditierungsRat: DIN EN ISO/IEC1 7025:200 accreditation of AIRTEC Gesellschaft für Umweltmessungen mbH. Valid from 2 April 2007 to 1 April 2012
 - Letter of Approval (LoA) authorizing Azomures SA as a project participant by the Ministry of Environment and Forests, Romania, dated 10 May 2010
 - Letter of Approval (LoA) by the *Ministère de l'Écologie, de l'Énergie, du Développement Durable et de la Mer, en charge des Technologies vertes et des Négociations sur le climat* dated 18 June 2010

The following table lists the names of persons interviewed during the determination process:

Date	Name	Organization	Topic
12 June 2008	Daniel Domanovsky	Vertis Environmental Finance	<ul style="list-style-type: none"> • Project activity • Legal requirements for nitric acid plants in Lithuania • Technology employed • Evidence to demonstrate additionality of the project • Monitoring plan • Ammonia oxidation primary catalyst information • Permitted operating conditions and baseline campaign data
	Aurel Popa	Azomures	
	Development Director		
	Ioan Soleriu	Azomures	
	Technical Director		
	Dudici Mircea	Azomures	

	Manager of Instrumentation		<ul style="list-style-type: none"> • Environmental licenses and legal compliance • Stakeholders consultation process • Management system
	Oltean Ioam Analyzer system manager	Azomures	

The following table list the AIE's determination team including a list of all persons involved in the determination process and a description of the functions assumed:

<i>Role/ Qualification</i>	<i>Last Name</i>	<i>First Name</i>	<i>Country</i>	<i>Type of involvement</i>					
				Desk review	Site visit / Interviews	Reporting	Supervision of work	Technical review	Expert input
Project manager/ Sector Expert/ Methodology expert/ Technical team leader	Kopperud	Trine	Norway	x	x	x	x		x
JI validator	Lehmann	Michael	Norway	x		x			
Technical reviewer	Khawaja	Rafi-ud-Din	Norway					x	

Description of determination process

Please briefly describe and refer to:

- The review of the JI PDD/PoA DD and additional documentation attached to it;
- The assessment against JI requirements, e.g. by using a determination protocol;
- The report of findings by the AIE, including the use of different types of findings (e.g. corrective action requests, clarifications or observations etc.).

Statements or assessments should be included in section "Conclusions, final comments and determination opinion".

The determination consisted of the following three phases:

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

Comments received from Parties, stakeholders and UNFCCC accredited observers

Please:

- Summarise the comments received pursuant to paragraph 32 of the JI guidelines; and
- Provide a report of how due account was taken of these.

There is no host country requirement for carrying out a local stakeholder consultation process.

Neither public nor any community are likely to be affected by the project and therefore project developer did not conduct stakeholder consultations.

The PDD was made publicly available on the JI website and Parties, stakeholders and NGOs were through the JI website invited to provide comments during a 30 days period from 14 May 2008 to 12 June 2008 under ref. no. 0137. No comment was received.

Conclusions, final comments and determination opinion

Please provide:

- Conclusions describing how each of the requirements of Article 6 of the Kyoto Protocol and the JI guidelines and further relevant requirements defined by the CMP or the JISC, in particular those referred to in paragraph 33 of the JI guidelines, have been met, including assessments and findings (e.g. corrective action requests, clarifications or observations) related to each requirement, and statements on whether all issues raised have been addressed to the AIE's satisfaction;
- Final comments and a determination opinion.

The determination report summarises the findings of the determination of the project, performed on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the Guidelines for the implementation of Article 6 of the Kyoto Protocol and the subsequent decisions by the JI Supervisory Committee, in particular those referred to in paragraph 33 of the JI guidelines, have been met, including assessments and findings (such a corrective action requests, clarifications or observations) related to each requirement. DNV confirms that issues raised have been addressed to our satisfaction.

List of documents attached to the determination report form

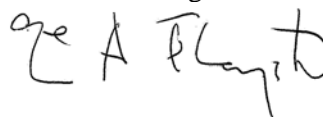
Please attach relevant documents used in the determination process and check mark below accordingly

- PDD/PoA DD of the proposed JI activity**
- Determination report**
- Written approvals by the Parties involved, listed in the JI PDD/PoA DD**
- Other relevant documents:**
 - Determination protocol**
 - List of persons interviewed**
 - Any other documents (please list):**

The AIE herewith declares that undertaking the determination for the proposed JI activity referred to above does not constitute a conflict of interest which is incompatible with the role of an AIE

Authorized officer signing for the AIE

Ole Andreas Flagstad



Date and signature

02 September 2010