

## The Climate Concept Foundation

Christopher Brandt, Executive Director

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23<sup>rd</sup> July 2012

To the

Executive Board for the Clean Development Mechanism

His Excellency Maosheng Duan (Chair)

United Nations' Climate Change Secretariat

– per E-Mail –

**Reference: Request for Registration - "N2O reduction project at the nitric acid plant of Global Ispat Koksna Industrija d.o.o. Lukavac ("Gikil"), Bosnia"**

Period for Requesting Review 19<sup>th</sup> July 2012 to 15<sup>th</sup> August 2012

Excellency,

Esteemed Ladies and Gentlemen serving on the CDM Executive Board,

the Climate Concept Foundation (CCF) is an environmental charity pursuing, amongst other aims, to promote the ecologic integrity of climate policy instruments such as the CDM.

**We ask the CDM EB members to seriously consider requesting a review of project "N2O reduction project at the nitric acid plant of Global Ispat Koksna Industrija d.o.o. Lukavac ("Gikil"), Bosnia".**

**There is a significant probability that current baseline emissions are 30-40% too high due to incorrect assumptions for the baseline technology.**

**This could potentially lead to an over issuance of more than 400,000 Certified Emission Reductions over the 10 year crediting period (more than 40,000 CERs per year for emission reductions which in fact will not be additional).**



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The DOE's validation report reflected on some of the comments submitted by us during the global stakeholder consultation period by written statement dated 9<sup>th</sup> December 2011; however important aspects of the underlying assumptions have not been validated appropriately. We therefore remain convinced that there is a significant danger that the stated baseline emissions may be overstated.

**The comments on we submitted on AM0028 and AM0034 using the public comments interface on the UNFCCC website on 9th February and 27<sup>th</sup> April 2012 have contributed to initiating a discussion on the appropriateness of the current methodologies in the course of which the CDM EB decided to mandate the CDM Meth Panel with an in-depth assessment of our claims.**

As long as clarity on the appropriateness of the current methodology versions has not been attained, projects employing them should not be registered, unless they voluntarily use the most conservative approach within the scope of the present discussion, i.e. assume that N<sub>2</sub>O emissions from the nitric acid production process are minimized by using high-palladium catalyst gauzes.

**The crucial element of the discussion regarding the proposed CDM project activity is, whether or not the plant operator GIKIL would use high-palladium gauzes (rather than platinum gauzes) for its nitric acid plant's operation. If so, business-as-usual N<sub>2</sub>O emissions would be lower, because N<sub>2</sub>O formation occurs only to a lesser extent when using high-palladium gauzes. The project proponents – supported by technology provider Johnson Matthey plc (UK) – state that GIKIL would not consider the use of high-palladium gauzes. They claim that there are technical barriers preventing the use of such gauzes.**

Without reiterating the comments made during the global stakeholder consultation, we would like to point out several statements made in the validation report (p. 229 ff. therein) that give cause to doubting the appropriateness of the evaluation of the project proposal:

- 1) *In their initial Validation PDD published for global stakeholder consultation, the project proponents claimed that there are investment barriers preventing the use of high-palladium gauzes. Now, their argument is solely based on technical reasons rather than financial ones. The DOE did not assess whether or not the questions raised by us on the alleged investment barriers were justified or not. Apparently, the project proponents try to avoid this topic and the DOE did not follow up on this.*
  - Comment CCF: This question is especially relevant, because we strongly believe that **there is** – contrary to what project proponents imply – **a business case for using high-palladium gauzes** instead of platinum gauzes. The price for palladium is less than half the price for platinum: today it was 1396 USD / ounce of platinum compared to 570 USD / ounce of palladium (see the technology provider's website under <http://www.platinum.matthey.com>). This indicates that the price of a high-palladium catalyst should also be lower.
  - In case there is a cost saving benefit associated with the use of high-palladium catalysts, the additionality tool does not allow the use of a simple cost analysis for assessing additionality; instead project proponents would have to undertake a IRR- or NPV-based investment



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analysis comparing the use of high-palladium catalysts to using platinum ones. The additionality section of the PDD would need to be rewritten (and validated anew).

- 2) *Another issue raised by us was, whether or not high-palladium gauzes decrease a plant's production efficiency. The project proponent's response to this is: "A change to a high-palladium gauze pack at Gikil's nitric acid plant would have a direct impact on the ammonia conversion efficiency and consequently on nitric acid production levels" (see p.233 of the Validation Report)*

- Comment CCF: It is not made apparent in the Validation Report that this statement has been appropriately verified. We doubt that this statement is correct. The gauze supplier Johnson Matthey has published a brochure on its product Eco-Cat, a high-palladium gauze pack, on its company website (see <http://www.noble.matthey.com/pdfs-uploaded/3%20EcoCat.pdf>). It is explicitly stated that **this gauze can be used without loss of conversion efficiency.**

Explanation of how due account of the comment is taken by the validation team: "Another primary control involves the modification of ammonia gauzes. Such modification has a direct impact on the ammonia conversion efficiency and consequently on nitric acid production levels." (see p.232 of the Validation Report)

- Comment CCF: It is not made apparent in the Validation Report, what evidence was provided to substantiate this statement. It does not only contradict the information given in Johnson Matthey's product brochure, but also other publicly available information on primary technology (see our previous input on this project activity).

- 3) *Furthermore, project proponents claim that there is a technical barrier due to high concentration of sulphuric oxides in the ambient air at the production site preventing the use of high-palladium gauzes: "Gikil's main business is the production of coke, during which sulphur and sulphur dioxide is emitted into the surrounding atmosphere. The air used in the primary ammonia oxidation reaction is therefore often more contaminated than at other nitric acid production sites. It can reduce the conversion efficiency of the upper gauze layers. This makes the operation of high-platinum gauzes even more important at Gikil." (see p.234 of the Validation Report)*

- Comment CCF: It is correct that ammonia oxidation catalysts can be poisoned (i.e. polluted in a way that decreases catalytic efficiency) by sulphuric oxides. However, sulphuric oxides are poisonous to any kind of primary catalyst, also platinum based ones. The air used for the production process therefore must be free from dust, particles and other materials that could compromise production efficiency. However **high-palladium gauzes are no more susceptible to poisoning by sulphuric oxides than platinum gauzes.**
- Furthermore, poisoning only occurs at concentrations prevalent in the off-gases of some industrial processes. These are much higher than ambient air concentrations can be. Even if sulphuric oxides are emitted in the vicinity of a nitric acid plant, **ambient air concentrations are very unlikely to cause any perceptible degree of catalyst poisoning.**

Explanation of how due account of the comment is taken by the validation team: "Due to the local operating conditions, a change of gauzes is not considered practical or economically viable at Gikil's nitric acid plant. Therefore, Gikil has been operating with the same gauze type for many decades." (see p.233 of the Validation Report)



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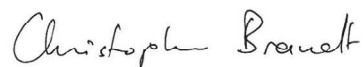
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- Comment CCF: This statement of the DOE does not reveal whether the alleged danger of catalyst poisoning is substantial or not. Possibly, such assessment has not been documented in the Validation Report. However, the DOE's relating to "...many decades [of platinum gauze use]..." implies that **past operational practice is used for justifying this assumption.**

Given these indications, we are seriously concerned about the quality of the evaluation undertaken by the validating DOE. We sincerely ask you to kindly take our comments into consideration when deciding whether or not to call this project proposal into review.

Most sincerely,



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