

Langemarckstrasse 20 45141 Essen Germany

Phone: +49 201 825-0 Fax: +49 201 825-2517

Info.tncert@tuev-nord.de www.tuev-nord-cert.com

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Our / Your Reference

Contact Rainer Winter E-Mail: rwinter@tuev-nord.de Direct Dial Phone: -3329 Fax: -2139 Date 06.06.2008

Request for Review

CDM Executive Board

TÜV NORD CERT GmbH • P.O. Box 10 32 61 • 45032 Essen • Germany

"Switching of fuel from coal to palm oil mill biomass waste residues at Industrial Oleaginosas Americanas S.A. (INOLASA)" (1314)

Dear Sir/Madam,

Please find below the responses of the project participants and the TÜV NORD JI/CDM Certification Program to the requests for review for the above mentioned project no. 1314.

If you have any questions do not hesitate to contact us.

Yours sincerely,

TÜV NORD JI/CDM Certification Program

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Rainer Winter

Headquarters TÜV NORD CERT GmbH

Langemarckstraße 20 45141 Essen Phone: +49 201 825-0

Frome: +49 201 825-0 Fax: +49 201 825-2517 info.tncert@tuev-nord.de www.tuev-nord-cert.com Director Dipl.-Volksw. Ulf Theike

Deputy director Dipl.-Ing. Wolfgang Wielpütz Registration Office Amtsgericht Essen HRB 9976 VAT No.: DE 811389923 Tax No.: 111/5706/2193 Deutsche Bank AG, Essen Bank Code: 360 700 50 Account No.: 0607895000 BIC (SWIFT-Code): DEUTDEDE IBAN-Code: DE 26 3607 0050 0607 8950 00



Request for Review 1-3 (1.)

Issue raised by EB Members / DNA	"The DOE stated that at the beginning as well as at the end of the monitoring period the boiler was not operational due to shortage of biomass. Clarification is required how the requirement of monitoring of surplus biomass as per the Board's General guidance on leakage in biomass project activities has been met and how the current monitoring plan complies with this requirement."
Response of project participant	 As well during validation as during the first periodic verification the DOEs could confirm that the biomass supply chain of the INOLASA project is a closed system. 100% of the biomass is supplied by Palma Ticas Palm Oil Mills Coto, Palo Seco and Naranjo of which INOLASA is an affiliate company. Through the respective supply contracts it is ensured that only surplus biomass is sold to INOLASA. Furthermore the three palm oil mills have not purchased any biomass from the market. A series of efficiency measures were initiated in parallel with the INOLASA project in order to make available biomass for INOLASA operations and to secure that indeed the surplus would cover the total demand. Unfortunately, Palma Tica was not able to implement all measures in the foreseen time frame. The measures implemented until 2007 include: In late 2005 the Coto mill acquired a new 35 MT steam/hr at 30 bar biomass boiler. Coto is the biggest of the three mills and through the increased efficiency of the new boiler the vast amount of palm kernel shells (PKS) for INOLASA is made available. Due to continuing production process improvements and tuning of the boiler the quantity of PKS supplied by Coto will increase further. In early 2007 Naranjo installed a steam economizer and an air preheater and moved its biomass boiler. These measures allow the generation of a permanent surplus of PKS. Further measures include: In early 2008 Palo Seco installed a steam economizer and an air preheater and moved its biomass boiler. These measures allow the generation of a permanent surplus of PKS. An empty fruit bunch (EFB) pre-treatment plant is under construction and going to be commissioned in mid 2008 at Palo Seco. The purpose is to prepare currently unused EFB from Palo Seco to be transported and to be fired in INOLASAs boiler.
Response of DOE	The surplus of biomass results from efficiency measurements at the palm oil mills 'Palo Seco', 'Naranjo' and 'Coto'. Before, the biomass residues were used in the internal production processes of the palm oils mills (mesocarp fibres – MF, palm kernel shells – PKS) or left to decay (empty fruit bunches – EFB) but were not used for other purposes. The aim of the efficiency measurements is in particular to reduce consumption of PKS at the palm oil mills to generate a surplus. In addition EFB shall be utilized as fuel through special treatment. Sufficient evidences documenting the implementation of the efficiency measurements have been provided to the DOE. However, during the considered monitoring period (2007-11-30 to 2007-12-31) the efficiency measurements at the plants of the biomass suppliers have not been completed



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yet and led to the shortage of biomass.
As stipulated in the supply contracts the biomass suppliers deliver their surplus of biomass only. During the monitoring period INOLASA purchased the biomass from the three palm oil mills exclusively. This was verified during the on-site visit by checking all delivering receipts that include the origin of biomass for the given period.
The monitoring plan includes the monitoring parameter number and origin of trucks loaded with biomass ('trucks _{i,y} '). Thus it is possible to monitor the origin of the biomass. As long as the biomass used is purchased from the three palm oil mills only the supply chain can be considered as closed. The DOE is of the opinion that in this case an annual evaluation of the surplus of biomass in the region of the project activity as per the Board's General guidance on leakage in biomass project activities is not required.
If this information is not sufficient to close the request for review, we appoint Ms. Inga Nagel as our contact person.
Ms. Inga Nagel TÜV NORD JI/CDM Certification Program Am TÜV 1, 30519 Hannover - Germany Phone: +49 511 986 2630 Email: <u>inagel@tuev-nord.de</u>

Request for Review 1-3 (2.)		
Issue raised by EB Members / DNA	"The DOE noted that there was no co-incineration with coal and the steam production was ensured by the bunker fuelled boilers. However, the PDD states that the project activity will replace the three bunker boilers. Further clarification is required."	
Response of project participant	Indeed the biomass boiler replaces the bunker boilers as main source of steam for INOLASAs processes. On the other hand the PDD also states that the bunker boilers will be kept and may be used for maintenance and emergency situations. Anyway, both systems are completely separated and only steam generated by the biomass boiler is taken into account to calculate emission reductions.	
	As described above the shortage of biomass was not expected. When biomass became short in the fourth quarter of 2007, INOLASA was not prepared for this situation. No coal was co-incinerated because the co-incineration of coal is only seen as a mid term option. INOLASA has not exercised this option as it acted in good faith that efficiency measures to free biomass would be concluded in time. Consequently, it had to use the back-up bunker boilers for unexpectedly large periods in December 2007.	
Response of DOE	The biomass boiler has been installed and replaces the bunker fuelled boilers for steam production. The bunker fuelled boilers are kept to sustain the required steam production during the maintenance period of the biomass boiler. The recourse to the bunker fuelled boilers during the start up phase of the project activity is caused by the delay in the implementation of the efficiency measurements (see comments above). The co-incineration with coal is an additional option to assure the supply of the steam. However, INOLASA was not prepared to make use of this option at that time but keep it in principle.	



As the biomass boiler including its installations and metering equipment and the bunker fuelled boilers are completely separated systems, it is secured that only project related emission reductions have been claimed in the monitoring period. This was verified during the on-site visit. The verification team comes to the conclusion that the proceeding is in compliance with the registered PDD. If this information is not sufficient to close the request for review, we appoint Ms. Inga Nagel as our contact person. Ms. Inga Nagel TÜV NORD JI/CDM Certification Program Am TÜV 1, 30519 Hannover - Germany Phone: +49 511 986 2630 Email: inagel@tuev-nord.de