

## CDM Executive Board

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### Request for Revision of Monitoring Plan

Switching of fuel from coal to palm oil mill biomass waste residues at Industrial de Oleaginosas Americanas S.A. (INOLASA) – UNFCCC Ref. No.: 1314

Dear Chair and Honorable Members of the CDM Executive Board,

Please find below the validation opinion of TÜV NORD JI/CDM Certification Program to the revision of the monitoring plan for the above mentioned project.

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

Yours sincerely,



Dipl.-Ing. Rainer Winter

Head of TÜV NORD JI/CDM Certification Program

## Request for Revision of the Monitoring Plan, acc. to EB 49, Annex 28

For the following changes a revision of the monitoring plan is requested:

### Requested Change #1

Type of revision:

- ☐ Due to a previously approved deviation from applied Methodology which continued in subsequent monitoring periods
- ☒ Due to a deviation from the registered Monitoring Plan

### A. Description of requested change

During site visit of the 4th verification (MP 01.10.09 – 31.08.10), the verification DOE has identified that in December '09 and February '10 the biomass boiler stopped due to low availability of biomass. The steam supply needed for the soybean production process has been assured meanwhile by using the bunker fuelled boilers. However, according to the registered PDD the use of bunker fuelled boilers is only foreseen during maintenance period (Section A.2 page 4) and co-incineration with coal is intended to assure in certain periods the supply of steam needed for the soybean process (Section B.6.3 page 28).

Shortage of biomass occurred already at the implementation phase (1<sup>st</sup> MP: 30.11.07 – 31.12.07, 2<sup>nd</sup> MP: 01.01.08 – 30.11.08) caused by delayed implementation of the efficiency measures at the palm oil mills where the project activity purchase the biomass exclusively (for further information please refer to project documentation of previous verifications). The co-incineration with coal was considered as a mid-term option to assure the supply of the steam and at that time the PP was not prepared to make use of this option. Efficiency measures together with the improvements of the burning conditions at the project activity have been implemented. During 3<sup>rd</sup> MP (01.12.08 – 30.09.09) sufficient biomass was available.

During 4<sup>th</sup> MP shortage of biomass was identified and again no coal was used for co-firing, but the bunker fuelled boilers instead. In response to the finding raised to address this issue the PP clarified that beside of the difficulties to acquire all required licences to purchase coal in Costa Rica, PP attempts to avoid co-incineration due to the complications and high costs connected to it, because the biomass boiler is not designed to work with coal. Therefore the verification DOE concluded that no co-incineration using coal will be possible in the future and the use of bunker fuel will be used permanently during maintenance periods and during low availability of biomass. A request of revision of the monitoring plan will be necessary in order to reflect in the PDD the actual monitoring activity.

### B. Assessment of requested change

The PP has provided revised section B.6 and section B.7 of the registered PDD. As no co-incineration using coal will be possible in the future, the PP has eliminated equations and parameter related to emission calculation of co-incineration of coal:

- Section B.6.3: Formula to calculate co-incineration minor fraction of coal

$$(Q_y = (Qt_y - Mc_y \cdot NCV_c \cdot \eta_p));$$

- Section B.7.1: Parameter “Mass of coal consumption for co-incineration at the project plant, during year” y ( $Mc_y$ ).

In order to avoid downtimes of equipment due to technical and mechanical problems caused by the accumulation of ashes inside the biomass boiler, the PP has extended the maintenance periods to improve the efficiency and operation of the boiler. Furthermore every year the biomass boiler is stopped (during 1 month) due to cleaning and high performance maintenance. This task is scheduled now in the dry period, when the biomass availability is limited, to reduce additional downtimes.

Besides, it should be noted that the PP has financial disadvantage due to the use of the bunker fuelled boilers instead of the biomass boiler as the price of the bunker fuel is clearly above the price of the biomass. The PP avoids using bunker fuel whenever possible.

During downtime of the biomass boiler the bunker fuelled boilers are operated to sustain the required steam production. The use of the bunker fuelled boilers is recorded in the corresponding logbooks which can be verified during on-site visit. A clear identification of the operational time of the bunker fuelled boilers and the biomass boiler respectively, is guaranteed. As the two boiler systems, including the metering equipment, are completely separated systems, it is secured that only project related emissions reductions are claimed in the monitoring period for the time the biomass boiler is operational.

No change in equipment or operation method is required as this approach has been used since project implementation.

The validation team confirms the applied methodology for project activity 1314 which is AMS-I.C. ver. 10 - Thermal energy for the user with or without electricity.

### C. Validation Opinion

- ☒ TÜV NORD herewith confirms that the proposed change ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced.
- ☒ TÜV NORD herewith confirms that the proposed change is in accordance with the applied approved monitoring methodology, or a later version of the same not compromising the conservativeness in the monitoring and verification process and of the emission reduction calculations.
- ☒ TÜV NORD herewith confirms that the findings of previous verification reports, if any, have been taken into account.