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Your reference/letter of	Our reference/name	Tel. extension/E-mail	Fax extension	Date/Document	Page
	IS-USC-MUC/Bb	+49-89 5791-2170	+49-89 5791-2756	2007-10-29	1 of 6
	Werner Betzenbichler	Werner.Betzenbichler@tuev-sued.de			

Request for review

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 0099. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Werner Betzenbichler
Carbon Management Service

Industrie Service

Response to the CDM Executive Board

Requests 1, 2 and 3

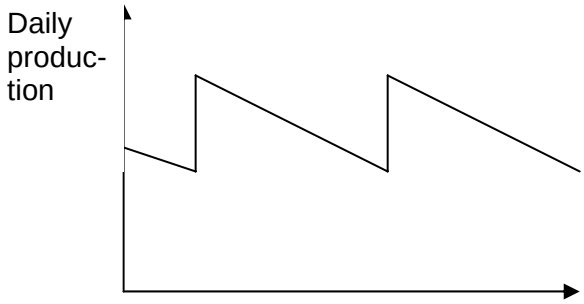
Issue 1:

During the monitoring period of 24 days, the average adipic acid production was 434 TPD, exceeding the maximum production of 415 TPD as set in the PDD. Further clarification is required.

Response by the project participants:

According to monitoring methodology AM0021, installed capacity is measured in tonnes of adipic acid per year. The monitoring methodology specifies that the nameplate capacity for adipic acid production of 2004 as per manufacturer's specifications is to be provided once at the time of submission of PDD. Nowhere in the methodology, daily production capacity is mentioned. The PDD in Section A provides a yearly adipic acid nameplate capacity of 151,475 tonnes.
TÜV SÜD's assessment team has verified in this Periodic verification #9 report No. 953337-PV09 that the cumulative adipic acid production in the year from September 01, 2006 (start date of first monitoring period and of the Crediting Period) to August 31, 2007 (end date of current monitoring period) is below the yearly maximum production (151,475 tonnes) defined in the PDD. For confidentiality reasons due to high competition in adipic acid production, cumulative production of adipic acid in the year from Sep. 1 2006 to August 31, 2007 is not listed in the public monitoring report but in the Workbook ER ONSAN sheet "AM" submitted to UNFCCC. Up to the end date of the monitoring period on August 31, 2007, cumulative year 2007 production of adipic acid had also not reached the maximum value of 151,475 tonnes.

The daily production rate of adipic acid varies considerably over time due to characteristics of adipic acid production, which is a complex process of 8 main steps. One key step of the process is the Cristallization. Performed by 4 crystallizers of different sizes (D21100, D21200, D21400, D21600). The daily production rate is linked to the state of the surfaces of the plate coils inside the crystallizers. The corrosion by the acid of these plates coils leads to a poor exchange cooling efficiency of the plate coils, so to longer time cycles and then lower daily production. It is common practice to clean (mechanical polishing, chemical cleanings) and change the plate coils (as repetitive cleanings consume the plate coils and reduce the metal thickness). Since 2000, on the 4 crystallizers this was performed 37 times. The plates coils of crystallizers D21400, D21600 were changed during plant stoppage end of June with the same material(304L) which has improved the reliability of theses sections. We will loose again the capacity in the future when the corrosion affects the surface of the plate coils; over time, the daily production will decrease again until the next cleaning is done (see graph below).



Response by TÜV SÜD:

We herewith confirm the statements given by the project participants and emphasize that limiting daily production at the indication given by the PDD is considered as subjective interpretation of the reviewer and not reflected by the methodology. The compliance with the annual production threshold has been verified.

Issue 2:

The participant reported an updated emission factor for power generation which was calculated ex-post. However, this calculation should be made available. Further information is required.

Response by the project participants and TÜV SÜD:

The TÜV SÜD assessment team has validated during the Initial Verification of the project performed on site end of October 2006, the calculation of E_Power, the CO2 emission factor of the grid power generation in the Republic of Korea. (Initial Verification report Report No. 869640, revision 04 dated 06 November 2006)

During the first Verification period in November 2006, TÜV SÜD assessment team has requested through a Forward Action Request 3 Rhodia to separate the detailed calculation of the emission factor for power generation in a different file than the Workbook ER ONSAN due to practical reasons (reduce the size of the data file Workbook ER ONSAN)
(Periodic Verification #1 Report No. 869640 Revision 01 dated 07 November 2006)
.
In his Periodic Verification #9 Report, TÜV SÜD refers in Annex 2: Information Reference List to these documents (line 16 and 36 in the table)

Reference No.	Document or Type of Information
16	Calculation s of Electric Grid Emission factor for Republic of Korea
36	Statistics of electric power in Korea by Korea Electric Power Corporation (KEPCO)

The “Calculations of Electric Grid Emission factor for Republic of Korea” is joined as requested in form of a separate file “Grid_EF_SouthKorea_KG_ PR”.

The ex-post calculation using Combined Margin approach is consistent with the methodology ACM 0002 as required by the project methodology AM00021 and the PDD. E_Power is reported in the Monitoring Report Appendix. Data used for calculation of E_Power is the latest available public data from 2005 from KEPCO (Korea Electric Power Corporation).

In this project, it is also to consider that there is no electricity generation but a low electrical consumption (as project leakage) accounting only for 0.014% of the Baseline Emissions in the verification period under review.

Requests 1 and 2 only

Issue 3:

While the DOE states in the Verification and Certification Report that: “Calibration sheets and related calibration documents had been submitted by Rhodia Recherchés et Technologie June 21, 2006. A calibration of the flow meter required for determining the emission reductions by the aerobic treatment system has not been necessary during the monitoring period, as this system went into operation in 2004 only, relying on the original calibration of the manufacturer. No further calibration activities are required for this CDM activity”, the PP states in the Monitoring Report that: “During this period, we made Calibration/Maintenance of Measuring and analytical instruments according to PDD”. Further clarification is required related to which calibration activities were effectively done, by whom and who verified those activities when required.

Response by the project participants:

The text in the verification report might be confusing as it is a remaining text from the First Verification Period. For the sake of clarity Rhodia reports since July 2007 in the Workbook ER Onsan of the period (see sheet “Cal_Maint”) the list of equipments and instruments to be followed according to the Monitoring Plan requirement to assure the accuracy of the project emission reduction calculation. The sheet reports also the status of meter calibration and maintenance. This improvement has been acknowledged and verified by the DOE in the Periodic Verification #7 Report No. 953337-PV07, Revision 0 dated 17 July 2007 As written in the Data Handling Protocol (F9), the process engineer checks the calibration/maintenance result according to the defined schedule in Cal_Maint sheet and updates the calibration results in worksheet.

The Onsan plant is ISO 9000 certified and the N20 decomposition facility has being integrated into the organization and QA system of the adipic acid plant. The maintenance department is in charge, either to make the calibration/maintenance work by its experts (according to specific Maintenance and calibration procedure and to Guidance for internal maintenance and calibration from “Korea association of standard & testing organizations”), or they contract a competent entity.
To assure the effective calibration and maintenance, the TÜV SÜD assessment team reviews and crosschecks the calibration sheets and related calibration documents that must be generated by Rhodia according to the ISO 9000 certification.

Concerning the calibration of the Stack gas Flow meter FIQ-58407, the calibration has been performed in June 2007 by a specialist “Environmental Management Corporation”. As this flow rate measurement is also key according to Korean legislation requirement (for NOx measurement transmitted to local authorities by a TMS (Tele Monitoring System)) , the calibration needs to be approved by Ulsan municipality.
The separate annexes provide the Calibration report of Environmental Management Corporation (accuracy test, pitot-tube inspection results), the Environmental Management Corporation licence certificate, and the Approval of Ulsan municipality of the calibration result.

Response by TÜV SÜD:

We herewith re-confirm the information given above, which details the information used during the verification process.

Issue 4:

In accordance with the methodology applied by the project and monitoring plan from the PDD the parameter r_y (Korean regulation required share of N2O emissions to be destroyed) should be monitored for establishment of baseline. Further clarification is required that there is no change in regulation of N2O and, in addition, the DOE should clarify how this parameter has been verified.

Response by the project participants:

Rhodia follows the evolution of Korean legislation about N2O emissions that could affect the project Emission Reduction through the parameters N_2O_reg / AdOH, Q_N_2O reg, or r_y as part of its SIMSER+ procedures (System Integrating Management for Safety and Environment). SIMSER+ is covering ISO 14000 standard which requires to follow any updates on environmental regulations. SIMSER+ has a dedicated section “SECTION 3 – REGULATORY AND VOLUNTARY REQUIREMENTS”.
SIMSER+ is an internal Rhodia Safety and Environmental high standard developed since 1997 in Rhodia. The ONSAN plant has been audited and recertified on 05/01/2007.
The Site Director has the legal responsibility to know and apply Korean legislations. For Hygiene, Safety and Environment he is supported by the Onsan site HSE (Hygiene, Safety and Environment) manager. They are also supported by an Asia-Pacific Responsible Care Director of Rhodia Group.
For the monitoring of the new HSE (Hygiene, Safety and Environment) local and national regulations, Rhodia Korea has joined two committees: “Onsan Environment Management Society” and “Korea Environmental Engineers Federation”. These associations also publish newsletters, magazines and reports sent to the Rhodia HSE manager. Before applying a new law, the Korean authorities should notify the new regulation and give a preparation period to apply a new regulation of about one year.

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Response by TÜV SÜD:

TÜV SÜD is active in South Korea also in the field of environmental services like providing environmental impact analyses, and certification of environmental management systems. Hence the follow-up of the environmental legislation is necessary anyhow and this local expertise is accessible within the verification team.

Issue 5:

The PP/DOE shall further clarify how the grid emission factor has been calculated. Do they apply ex-post monitoring of this factor? How do they calculate Combined Margin if data on Build Margin is not available?

Response by the project participants:

As show in “Grid_EF_SouthKorea_KG_ PR” all data required for calculation of the Combined Margin, including the Build Margin, is available from KEPCO and has a 2005 vintage.

Response by TÜV SÜD:

TÜV SÜD verified the appropriateness and correctness of the presented data as part of the verification activity.