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Att: CDM Executive Board

Your ref.:
CDM Ref 1018

Our ref.:
KCHA/MLEH

Date:
10 November 2008

Response to request for review - Issuance of CERs regarding “Fuel efficiency improvement in glass melting” (1018)

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by three Board members concerning DNV's request for issuance of the CERs from “Fuel efficiency improvement in glass melting” (1018) and would like to provide the following initial response to the issues raised by the requests for review.

Comment 1:

The monitoring report states that "the weight of glass bottles produced is checked at regular frequency at calibrated weighing machine and recorded regularly...". Further clarification is required on the exact frequency of the measurement and how the DOE has verified the calibration for the equipments measuring parameter MGy (molten glass produced in the furnace).

DNV Response:

The weight of glass bottles are checked every two hours both in the hot end (immediately after coming out of the furnace) and the cold end (end of the production line). Thus in every shift the weight of the bottle produced is checked eight times by calibrated weighing scales. The weighing scales are further calibrated every four weeks by using standard weights which are calibrated annually by the Department of Weights and Measure, Government of India.

The molten glass production from the furnace is measured as a product of the rate of the machine output in bottles per minute (BPM), operating hours of the machine and weight of each bottle produced. The operating hours of each machine is as recorded in the daily production log book. The BPM for each machine is measured by in-built auto program based drive control system supplied by international suppliers (*M/s Futronics GmbH*, Germany, Model no. APC700 for the Rishra unit, *M/s Bottero*, Italy, model no. FMC+EGD400, EFC200 for the Bahadurgarh Unit, and *M/s Futronics GmbH*, Germany, model no. APC700 for Pondicherry unit). The digital reading displayed at each machine actually counts number of cuts per minute and number of gobs produced during each cut and displays the number of bottles produced per minute. This is then recorded in an on-line computer system and archived continuously. Since the number of bottles per minute is decided by the in-built program of the machines, the BPM remains fixed for each type of bottle produced. However for cross-checking purpose, the BPM of each

machine is cross-checked annually by counting the number of cuts produced each minute by a stop-watch which has an accuracy level of $1/100^{\text{th}}$ of a second. During the verification, the procedure for measuring the BPM was repeated on-site and it was observed that there was no deviation from the actual displayed value in the machine.

As mentioned earlier, the weight of glass bottles produced from a machine is checked through random sampling eight times every shift by calibrated weighing scales. The weighing scales are further calibrated every four weeks by using standard weights which are calibrated annually by the Department of Weights and Measure, Government of India. The calibrations of the weighing scales were checked on-site during the verification.

Thus the calibrations of the equipments measuring the molten glass production were checked through records of the same and also by on-site spot checks during the verification.

Comment 2:

Clarification is required on the calibration for the equipment(s) measuring cullet %

DNV Response:

Cullet is the amount of broken glass fed along with the raw meal to the glass making furnace. Cullet% is defined as the percentage by weight of broken glass in the total feed to the furnace. This is a calculated value obtained from the weight of total broken glass and total basic raw meal (soda-lime, silica etc.) fed into the furnaces for production of molten glass. Hence calibration of equipment(s) required for measuring cullet % refers to the calibration of the weighing scales that measure the weight of the total broken glass and the raw meal (soda-lime, silica etc.). The weighing scales for measuring the same are calibrated on annual basis using standard weights which are calibrated by Department of Weights and Measure, Government of India, also once in a year.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully

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