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UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D-53153 Bonn, Germany

Date: 21st February 2008

Att: CDM Executive Board

Response to request for review
Demand side energy conservation & reduction measures at IPCL-Gandhar Complex (0445)

Please find the response of the Project Proponent to the clarifications raised in the CDM project activity issuance review received from UNFCCC.

Comment 1:
Some monitored refrigeration values in June and July 2006 exceed the nameplate capacity of VARs. For example, the monitored refrigeration of 730 TR/hr by VAR unit 1 in Ethylene Oxide-Ethylene Glycol plant on 29 June 2006 was over than 700 TR/hr stated in the PDD. Further clarification is required.

Response by PP:
The capacity of VARs to deliver the amount of refrigeration demand is largely dependant on a number of other parameters that drive the refrigerant cycle, e.g. concentration of LiBr, the absorbing chemical, the heat input to the generator section where LiBr solution is concentrated and made ready to absorb water vapour (refrigerant) in the absorber section, temperature of cooling water entering the condenser section. The same is clearly mentioned in Chapter 2 of the Operation & Maintenance Manual from the supplier of the VARs. A scanned copy of the same is attached (refer page 2 of attached file */Extract from O&M Manual.pdf/*).

The specification data sheets of the VARs are attached for reference (Page 2 of /Data sheet of PK-310A&B.pdf /; Page 2 of /Pages from/ */Data sheet of RF-9R&10R.pdf/*).It may be noted in the data sheets that the design condenser inlet cooling water temperature is 33 deg C that represents the expected worst scenario under which the VARs are expected to deliver their normal capacity. However, at site, for better part of the year, the cooling water temperature is mostly well below this design temperature. Hence, this frees up a lot of capacity that the machines are capable of delivering if perchance such a demand is made. As seen in the monitoring data, the machines, during the monitoring period, have been able to deliver higher than the normal capacity when such a demand has been made of it by the manufacturing process.

The entire data analysis shows that in 7.5% of instances the deviations has been less than 10%

(mostly 5%) of applicable name plate capacities, 0.5% of instances the deviations has been between 10% and 20% of applicable name plate capacities and 0.1% of instances the deviations has been greater than 20% of applicable name plate capacities

Review request 2:
Minor issue: The sectoral scope mentioned in the monitoring report (p.2) should be corrected to "Manufacturing industries".

Response by PP:
The scope has been corrected and the revised monitoring report Ver 4 dated 08-Feb-08 is attached for reference.

Thanks & Regards,

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