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TÜV®

CDM team
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Our / Your Reference

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Response to Clarification request regarding the Request for Approval of Post Registration Changes to project activity "Durban Landfill-gas-to-electricity project – Mariannhill and La Mercy Landfills" (UNFCCC Ref. no. 0545 - PRC ref No. PRC-0545-002), notification received "26/08/2015"

Dear CDM team,

Please find below the clarifications and specification response of the TÜV NORD JI/CDM Certification Program to the request for request for approval of changes to the above mentioned project.

With regard to this response, we would kindly request you to continue with the request for approval of changes process. If that cannot be done, please specify the request for clarification to the approval of changes in more detail to prevent any misinterpretation. If you have any questions do not hesitate to contact us.

Yours sincerely,

TÜV NORD JI/CDM Certification Program

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Request for Registration/Issuance Incomplete Reason (1)	
Scope and Issue raised by the UNFCCC Secretariat:	In regard to the values applied for parameter $\eta_{\text{flare,m}}$, the DOE is requested to clarify: (i) how the value to be applied, i.e. 0.5 (or 50%) is in line with the tool “Project emissions from flaring” version 2.0, as the tool does not have provision of default value of 50% for enclosed flare;
Response by PP	<p>The project participant would first like to note that this is already part of the registered PDD, written during the renewal of the crediting period, as per text on page 22 of the PDD available on the projects webpage on the UNFCCC website¹; it is hence not part of the current PRC being submitted, but only a clarification which has been introduced in the monitoring plan section for the “values applied” box, to be consistent with section B.6.1 of the PDD (pg 22) and information on the “choice of data” box for parameter $\eta_{\text{flare,m}}$ (pg 38).</p> <p>The reason behind the possibility of application of the 50% flare efficiency value, was evaluated when the project renewed its crediting period, and is explained as follows: experience has demonstrated that there are instances when the enclosed flare is operational as per manufacturer specifications, but the monitoring equipment per se may malfunction, or simply be down or unavailable due to maintenance or failure. Hence the purpose of the alternative approach is to have an approved conservative alternative intended to be used only for limited periods of time where the preferred monitoring approach cannot be followed due to a missing monitored parameter.</p> <p>The approach has been approved for this and other CDM projects, as it is recognized to be conservative, given that enclosed flares in CDM projects have demonstrated to have monitored efficiencies higher than 97%, while open flares have been given a 50% default efficiency when demonstrating that they are operational. Hence if the project can at least demonstrate that the enclosed flare has been operating, it is conservative to assume that at least it would operate as an open flare with a 50% efficiency. The alternative approach does not change the way monitoring is carried out, it is just a conservative approach to be followed when it is not possible to obtain the flare efficiency due to the lack of information of any parameter (e.g. due to a problem in a gas analyzer). Hence the alternative proposed is in line with the methodology requirements and represents a conservative approach to the calculation of ERs.</p> <p>We hope this clarifies why this approach was approved at the renewal of the crediting period.</p>

¹ Available at http://cdm.unfccc.int/filestorage/J/T/2/JT2NPCLRM7UK4AE06DFBV5IO3GZS9Q/CDM-PDD%20Durban_v3.pdf?t=M0R8bnU0YW42fDBDzjjsT6EJW_nf91Ljxxk

Response by DOE:	<p>DOE has checked related current registered and latest available PDD on UNFCCC project webpage and can therefore confirm that the approach is already approved and registered. Further the application of the default value of 50% is not part of this PRC request however only the change of the value applied it updated for completeness. Previously only the value 80% was stated however as per registered and approved approach under certain circumstances also a value of 0% or 50% could be applied. Based on that the monitoring plan under this parameter in the box "value applied" has been updated to state all three potential values 0, 50 and 80.</p> <p>Further DOE has checked a confirmation letter by the manufacturer dated 02/12/2014 which confirms that the flare efficiency is at least 97% in case the minimum flare temperature is 500°C and the minimum flow is 100 Nm³/h.</p>
Request for Registration/Issuance Incomplete Reason (2)	
Scope and Issue raised by the UNFCCC Secretariat:	<p>(ii) in what conditions efficiency of 50% will be used. The monitoring plan describes that the figure will be used in case of monitoring equipment for the temperature of the flare (TEG,m) and the flow rate of the residual gas to the flare (FRG,m) is unavailable and if the flame is detected in minute m (Flamem), but the temperature of the flare (TEG,m) and the flow rate of the residual gas to the flare (FRG,m) are not within the manufacturer's specification for the flare (SPECflare) in minute m. Please clarify how the PP can determine whether or not TEG,m and FRG,m are within the manufacturer's specification when the equipment to monitor those parameters is unavailable.</p>
Response by PP:	<p>As mentioned on the previous point and as per the text on page 22 and 38 of the registered PDD, the default 50% value for flare efficiency, is only meant to be used during those periods of time when the monitoring equipment for condition (1) (The temperature of the flare and the flow rate of the residual gas to the flare are within the manufacturer's specification for the flare) is unavailable for maintenance, or failure, and the flare is demonstrated to be operational with the use of the flame detector.</p> <p>What is meant with "TEG,m and FRG,m" not being within manufacturer specifications", is that they are not available hence cannot be verified.</p> <p>The text in the registered PDD (pg 22) and the "Choice of data" box for parameter $\eta_{\text{flare,m}}$ (pg 38) says:</p> <p>"50% if the flame is detected in minute m (Flamem), but the temperature of the flare (TEG,m) and the flow rate of the residual gas to the flare (FRG,m) are not within the manufacturer's specification for the flare (SPECflare) in minute m. This is applicable for those cases in which the system is unavailable for maintenance or failure."</p>

**Response by
DOE:**

As per approach stated in PDD the 50% default is applied in case the parameter temp and flow cannot be obtained/measured due to any reason e.g. maintenance to the equipment or failure. However the flare is installed with a flame detector as confirmed during site visit. The 50% is applied as per registered and approved monitoring plan in cases where the flame detector provides the signal "flame is on" but the other parameters are not available. The same is also stated in the monitoring plan under related parameter "*This is applicable for those cases in which the system is unavailable for maintenance or failure.*"

Therefore the approach is not part of the PRC and is already approved and registered by UNFCCC.