11 June 2012

The Chairman and the Members of the CDM Executive Board
c/o UNFCCC Secretariat
P.O. Box 260124
D-53153 Bonn
Germany

Dear madam/Sir,

Re: Comments on the draft revision of the methodology AMS-III.G
"Landfill methane recovery"

 We would like to welcome efforts made by the CDM executive board to improve the methodology AMS-III.G "Landfill methane recovery". In responding to the open call for public inputs on the proposed revised methodology, we would like to submit our comments.

The introduction of "methane recovery rate" and "its default value" will improve the ex-ante estimation of methane recovery

 First of all, we welcome the establishment of the efficiency rate of the landfill gas (LFG) capture system. We think that this information is very helpful for project developers when they calculate the baseline emission. In the version of the methodology, there is no mentioning that project participants can incorporate the ratio, to which LFG will be captured from the implementation of the project.
 The baseline emission calculation of the AMS-III.G is based on the fast order decay model.   The model estimates the potential methane generation from the landfill site taking the input data from the amount of waste, composition of wastes in the site, depth, precipitation, etc.   However, it has been pointed out that the model tends to over-estimate the baseline emissions as compared to the actual LFG recover.
 In this context, most of the project design documents (PDDs) have been voluntarily applying the so-called "methane recovery rate" or "capture efficiency" as represented "r" shown in the following equation.

 ER calculation described in the methodology (AMS-III.G version 7)

$$ER_{y,estimated} = BE_{CH4,SWDS} - MD_{reg,y} \cdot GWP_{CH4} \qquad eq.(1)$$

 ER calculation **most of the developers applied** to adjust the ER conservatively (AMS-III.G version 7)

$$ER_{y,estimated} = \mathbf{r} \cdot BE_{CH4,SWDS} - MD_{reg,y} \cdot GWP_{CH4} \qquad eq.(2)$$

$$r = \text{methane recovery rate or capture efficiency}$$

The default value should be set to be conservative enough to reflect uncertainty associated with methane generation potential

 The following Table 1. summarises the values applied to "r" from the registered PDDs applying

AMS-III.G. as of May 31 2012.   There are a total of 24 project activities registered and the range of the values varies from 0.5 to 1 with the average value of 0.63.   Around 45% of registered project apply the value of 0.5 for methane recovery rate or capture efficiency and this value is the most conservative value. Taking into the account of the actual values used in this efficiency rate and the value applied in the current draft revision (0.5) would be appropriate and further improvement of this default value should be required as more experience accumulated.

Table 1. Application of methane recovery rate or capture efficiency in registered projects using methodology AMS-III.G

Reference number	Methane recovery rate or capture efficiency	Country	Registration Date
1192	0.85	Morocco	6-Nov-07
2338	0.5	Argentina	16-Mar-09
2402	0.65	Peru	4-May-09
2451	0.5	China	25-Jun-09
2452	0.5	China	25-Jun-09
2549	1	South Africa	24-Aug-09
1645	0.5	Argentina	24-Sep-09
2794	0.7 and 0.6	Columbia	3-Nov-09
2892	0.6	China	16-Jan-10
2834	1	Korea	18-Feb-10
3663	0.5	Thailand	21-Sep-10
3715	0.5	Columbia	25-Dec-10
3937	1	China	20-Jan-11
4294	0.55	Korea	17-Feb-11
4503	0.7	China	7-Apr-11
4610	0.7	China	7-Apr-11
4424	0.5	Columbia	27-Jul-11
4743	0.5	China	21-Aug-11
5130	0.65	China	22-Aug-11
4423	0.5	Columbia	25-Aug-11
4324	0.5	Columbia	2-Sep-11
5238	0.6	China	7-Oct-11
5399	0.5	Uganda	20-Jan-12
5652	0.7	China	8-Feb-12

Source: IGES CDM Databases (As of 31 May 2012) and Project Design Documents

Table 2. Frequency of methane recovery rate or capture efficiency

Methane Recovery Rate or capture efficiency	Number of PDD
0.5	11
0.55	1
0.6	3
0.65	2
0.7	3
0.85	1
1	3
Average 0.63 (Total 24 projects)	

We hope that this revision would enhance the clarity of baseline calculation in AMS-III.G and ensures the conservativeness in the estimation of emission reductions from landfill gas recovery projects.

Sincerely yours,

Akihisa Kuriyama and Kazuhisa Koakutsu
Market Mechanism Group
Institute for Global Environmental Strategies (IGES)
2108-11 Kamiyamaguchi, Hayama, Kanagawa
240-0115 Japan
Tel: +81-46-826-9605, Fax: +81-46-855-3809
E-mail: kuriyama@iges.or.jp