CLARIFICATIONS TO AMS-III.D: METHANE RECOVERY IN ANIMAL MANURE MANAGEMENT SYSTEMS

Issue date: 5 August 2025

This document provides clarifications applicable to *AMS-III.D: Methane Recovery in Animal Manure Management Systems* when used by a project registered with Verra's Verified Carbon Standard (VCS) Program. The clarifications are effective on the issuance date, with further guidance provided in the table below. Project proponents and validation/verification bodies (VVBs) shall apply and interpret *AMS-III.D* consistent with the clarifications set out in this document.

Clarification	Description	Section Reference[1]	Effective Date
Clarification 1	Monitoring of W_{site}, the average animal weight of a defined livestock population at the project site	Section 4.3 Baseline Emissions, Equation (3) and Paragraph 18(c)	Effective immediately. For vintages before 5 August 2025 (publication date of these clarifications), the project proponent may continue to monitor in line with the registered project description. For vintages after 5 August 2025, these clarifications must be applied. For example, if a monitoring period is from 1 January 2025 to 31 December 2025, the project proponent may use the data monitored as per the registered project description from 1 January 2025 to 5 August 2025. For the remaining period from 6 August 2025 to 31 December 2025, these clarifications must be applied.
Clarification 2	Determination of as-excreted $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ on a dry basis	Section 4.3 Baseline Emissions, Equation (5) and Paragraph 19	
Clarification 3	Requirement to conduct site visit when project proponents include new farms after registration	All relevant sections	Effective immediately

[1] Section numbers based on *AMS-III.D, v21.0*

Clarification 4	Updating references to the most recent version of the IPCC Guidelines for National Greenhouse Gas Inventories	All relevant sections	Effective immediately

CLARIFICATION 1

Clarification:

Projects applying the third option to determine $VS_{LT,y}$, that is, adjusting the default IPCC *VS* value for a site-specific animal weight (as per Equation 3 in version 21.0 of the methodology), must apply the following procedure when monitoring parameter W_{site}.

Data / Parameter:	W_{site}
Data unit:	kg
Description:	Average animal weight of a defined livestock population at the project site
Source of data:	Provided by farm owners
Measurement procedures (if any):	The project proponent must describe the measurement plan for W_{site} for each livestock type, by different age categories, and for each of the farms included in the project boundary. Where sampling procedures are applied, the "Standard for sampling and surveys for CDM project activities and Programmes of Activities" may be applied. The project proponent must describe the system of random sampling applied, considering stratification of each livestock category, and follow the QA/QC procedures described below.
Monitoring frequency:	Quarterly samples and averaged annually
QA/QC procedures:	When using sampling procedures, the following requirements must be met: a) To ensure representativeness, each defined livestock population must be classified into categories representative of age and growth of the animal. b) Where quarterly samples are not available, the project proponent must justify an adequate sampling frequency

	representative of each age class and for each defined livestock population. The project proponent must ensure that the weigh scale is correctly calibrated following manufacturer specifications.
Any comment:	-

Background:

The methodology does not provide explicit monitoring requirements and procedures for monitoring parameter W_{site} (average animal weight of a defined livestock population at the project site) when using sampling procedures to adjust the default IPCC values for site-specific animal weight.

CLARIFICATION 2

Clarification:

Projects applying Equation 5 in methodology version 21.0[2] to determine baseline emissions from manure must ensure that the two parameters $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ are monitored "as excreted." The project proponent must provide evidence to the VVB describing how the parameters $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ are monitored "as excreted."

Project proponents monitoring $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ at the entrance of a central treatment plant must justify how they ensure that the manure is monitored "as excreted" (i.e., without any changes due to dilution, drying, volatilization, or any other process altering the characteristic of the manure from the conditions at the farm). $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ must be monitored separately for each livestock type and category and baseline treatment system, as required by Equation 5. The project proponent must provide evidence to the VVB that there are no additions to the manure that could affect the values of $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ such as additional organic material, agro-residues, or soil. The value of $Q_{manure,j,LT,y}$ should be within the expected range based on relevant peer-reviewed literature sources. Where significant differences (more than 10%) are observed, proper justification must be provided.

Project proponents measuring manure on a wet basis must convert $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ to a dry basis using values of total solids of the manure "as excreted," where:

$$Total\ Solids = \frac{Dry\ Weight}{Wet\ Weight}$$

[2] Or equivalent equation in a previous methodology version

- Option 1: The dry weight is obtained after a manure sample is dried in an oven at 103 ºC, for 24 hours or until weight remains constant.
- Option 2: Default values for moisture content in manure as excreted may be taken from Tables 4-5 (a), 4-8 (a), 4-10 (a), and 4-11 (a) in the USDA *Agricultural Waste Management Field Handbook* (2008), Chapter 4 (pages 4-13 to 4-19).

The VVB must assess the validity of the laboratory tests by reviewing the data logs and comparing the results with similar projects in the region (if any) and the default values as stated above. Any significant differences must be properly justified by the project proponent.

Background:

As described in paragraph 18(a) of the methodology, B_0 must be based on total as-excreted *VS*. Therefore, the associated parameters of $Q_{manure,j,LT,y}$ and $SVS_{j,LT,y}$ must also be expressed on an as-excreted basis to ensure consistency.

"As-excreted" refers to feces and urine characteristics prior to any changes due to dilution, drying, volatilization, or any other process (based on the USDA *Agricultural Waste Management Field Handbook* (2008), Chapter 4).

"As-transferred" refers to feces and urine characteristics after they are subject to treatment following excretion. Depending on management practice, this could imply the addition of food leftovers, the addition or removal of water, or the inclusion of bedding material, soil, or other materials (based on the USDA *Agricultural Waste Management Field Handbook* (2008), Chapter 4).

As stated in the USDA *Agricultural Waste Management Field Handbook* (2008), Chapter 4, treatment of manure following excretion may result in physical and chemical changes from the addition and/or removal of waste feed, water, bedding material, and soil, among others.

It is important to ensure that the manure does not contain contaminants as these could increase the value of the parameters, resulting in an overestimation of greenhouse gas (GHG) emission reductions.

CLARIFICATION 3

Clarification:

The VVB is required to conduct an on-site visit to each new farm added as a project description deviation after registration.

Background:

Section 4.1.11 of the *VCS Standard, v4.7* states that the VVB shall conduct site visits at validation, and Section 3.21.6 states that a project description deviation (which is how new farms are added to a project) is a validation activity.

CLARIFICATION 4

Clarification:

All references to the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* in the methodology must be read as references to the most recent version of the IPCC Guidelines for National Greenhouse Gas Inventories and any refinements or amendments to it.

Background:

This is in accordance with Section 1.1 of the *VCS Standard, v4.7*, which states that "where external documents are referenced (e.g., the *2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories*), and when such documents are updated, the most recent version of the document shall be used."