



CLIMATE
ACTION
RESERVE

Organic Waste Digestion Project Protocol Version 2.0 ERRATA AND CLARIFICATIONS

The Climate Action Reserve (Reserve) published its Organic Waste Digestion Project Protocol Version 2.0 (OWDPP V2.0) in June 2011. While the Reserve intends for the OWDPP V2.0 to be a complete, transparent document, it recognizes that correction of errors and clarifications will be necessary as the protocol is implemented and issues are identified. This document is an official record of all errata and clarifications applicable to the OWDPP V2.0.¹

Per the Reserve's Program Manual, both errata and clarifications are considered effective on the date they are first posted on the Reserve website. The effective date of each erratum or clarification is clearly designated below. All listed and registered OWD projects must incorporate and adhere to these errata and clarifications when they undergo verification. The Reserve will incorporate both errata and clarifications into future versions of the protocol.

All project developers and verification bodies must refer to this document to ensure that the most current guidance is adhered to in project design and verification. Verification bodies shall refer to this document immediately prior to uploading any Verification Statement to assure all issues are properly addressed and incorporated into verification activities.

If you have any questions about the updates or clarifications in this document, please contact Policy at policy@climateactionreserve.org or (213) 891-1444 x3.

¹ See Section 4.3.4 of the Climate Action Reserve Program Manual for an explanation of the Reserve's policies on protocol errata and clarifications. "Errata" are issued to correct typographical errors. "Clarifications" are issued to ensure consistent interpretation and application of the protocol. For document management and program implementation purposes, both errata and clarifications are contained in this single document.

Please ensure that you are using the latest version of this document

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Section 2

1. Ownership of Emission Reductions (CLARIFICATION – January 21, 2014)

Section: 2.3 (The Project Developer)

Context: In all cases, the project developer must attest that they have exclusive ownership of all emission reductions resulting from the project, and that no other entities are reporting or claiming the emission reductions. It is not clear whether this requirement extends beyond legal claims to emission reductions, to more informal claims, and no further guidance is given as to the types of evidence that a verifier may find helpful in verifying this requirement.

Clarification: The following text shall be added to Section 2.3, at the bottom of page 4:

“If an OWD project is receiving credits or incentive payments of any kind in addition to CRTs, the project developer needs to demonstrate that double claiming of emission reductions is not occurring. The project developer must demonstrate to the verifier that the party (or parties) providing those payments/credits are not directly or indirectly asserting any claim (legal or otherwise) to the project’s emission reductions. The project developer should provide the verifier with any Terms of Reference, contracts, program rules, etc., associated with the granting of the payments/credits.”

Section 3

2. Food Wholesalers and Food Distributors (CLARIFICATION – November 1, 2018)

Section: 3.5.1 (The Performance Standard Test)

Context: This section defines eligible waste streams and a specific, additional set of requirements for food waste that is sourced from grocery stores. Food waste is only eligible if it is “non-industrial” in nature. Certain commercial facilities exist that do not process food but also do not provide it directly to consumers. It is not clear whether food waste from these facilities should be considered “industrial” and thus ineligible.

While not specifically addressed in the protocol, the Reserve believes that the intent is for food wholesalers and food distributors to be treated in the same manner as grocery stores. Food waste from food wholesalers and food distributors is therefore eligible, but must meet the documentation requirements applied to grocery stores.

If the activities of a particular food wholesaler or food distributor goes beyond the mere distribution of food products to the processing of food, and food that has undergone such processing then becomes waste, such waste is considered industrial in nature and ineligible. Facilities with multiple waste streams, some eligible and some ineligible, must be able to document the quantity of eligible waste separately from ineligible waste.

Clarification: Food waste originating from food wholesale and distribution facilities shall not necessarily be excluded as “industrial” per the first bullet of Section 3.5.1. The following text shall be added after the first paragraph on page 8:

“Food waste originating at food wholesale and food distribution facilities shall not be considered ‘industrial’ for the purposes of eligibility as long as this facility does not process the food in any way (i.e. output a food product that is materially different from the input food product), but simply serves as a link in the distribution of food to commercial customers or consumers. Such facilities are considered akin to grocery stores and subject to the requirements of this protocol applicable to that source category.”

3. Regulatory Compliance at Centralized Digesters (CLARIFICATION – November 1, 2018)

Section: 3.6 (Regulatory Compliance)

Context: This section states that, where a verifier determines that project activities have caused a material violation, no CRTs will be issued during the period(s) when the violation occurred. The guidance in this section does not specifically address:

- whether regulatory compliance issues arising prior to delivery of food and wastewater waste streams to the project facility, should be considered relevant for regulatory compliance requirements; or
- how to address regulatory compliance for projects where manure is received from multiple farms and managed in a centralized BCS.

With respect to manure waste streams, it is unclear whether a violation with respect to one manure source facility would jeopardize the ability of the project to receive credit from emission reductions related to manure from other source facilities. It may be possible for an offset project at a centralized digester to have CRTs issued to it for manure from compliant manure source facilities during a period of time when one or more manure source facilities are materially noncompliant with a regulation.

Clarification: The following text shall be inserted on page 11, at the end of Section 3.6:

“With respect to projects that accept and manage manure from multiple, discrete source facilities (separate from the project BCS in both physical location and management), it may be possible for a project developer to demonstrate that a regulatory violation at one source facility does not affect the eligibility of the entire project under this section. Project developers should contact the Reserve to discuss potential regulatory non-compliance issues.

With respect to projects that accept food waste streams, regulatory compliance violations occurring prior to delivery of such waste to the project site shall generally be considered unrelated to the project.

With respect to projects that accept wastewater streams from offsite sources, regulatory compliance violations occurring prior to delivery of such waste to the project site shall generally be considered unrelated to the project.”

Section 4

4. Anaerobic Digestate Disposal (ERRATUM – January 21, 2014)

Section: 4 (The GHG Assessment Boundary)

Context: In Table 4.1 on page 17, the “Source Description” for SSR 18 (Anaerobic Digestate Disposal) includes disposal at a landfill as well as other anaerobic systems. However, the “Justification/Explanation” column erroneously implies that this SSR only includes digestate disposal at a landfill.

Correction: In the “Justification/Explanation” column of SSR 18, the following text shall be inserted after the phrase “If digestate is disposed of at a landfill”:

“or other anaerobic disposal system.”

Section 5

5. Prorating Emissions from Manure for Reporting Periods Containing Incomplete Calendar Months (CLARIFICATION – January 21, 2014)

Section: 5.1.3 (Baseline Emissions from Manure Treatment Systems (SSR 5))

Context: Some OWD projects will refer to the Livestock Project Protocol for guidance on quantifying emission reductions from livestock manure. Certain quantification equations in the Livestock Project Protocol direct project developers to calculate emissions on a monthly basis, without providing any specific guidance on how to account for instances where a reporting period may contain only part of a calendar month. If project developers do not prorate emissions by excluding those days of the incomplete calendar months which do not fall within the reporting period, then the modeled baseline and project methane emissions will be inaccurately quantified for that month and reporting period.

Clarification: The following words shall be added to the first paragraph of Section 5.1.3 on page 33, preceding Equation 5.10:

“Projects co-digesting manure, whose reporting periods begin or end with incomplete calendar months, shall prorate the baseline and project methane emissions to include only the portion of the month that is included within the reporting period.”

6. Offsite Processing of Eligible Waste and Digestate (CLARIFICATION – January 21, 2014)

Section: 5.2.1 (Project CO₂ Emissions from On-Site Fossil Fuel Combustion and Grid Delivered Electricity (SSRs 3, 8, 13, 15, 17))

Context: Offsite processing of eligible waste and/or digestate is allowed under this protocol, provided associated emissions are adequately accounted for. Section 5.2.1 is not clear about whether to quantify the CO₂ emissions of offsite project activities. If offsite processing of eligible

waste or digestate takes place which would not otherwise occur in the baseline scenario, project developers must account for all CO₂ emissions from any grid electricity and fossil fuel used in the processing and any transport of material between the processing site and the project.

Clarification: The following guidance shall be added to Section 5.2.1 on page 34, preceding Equation 5.12:

“If the project utilizes offsite processing of eligible waste and/or digestate which would not otherwise occur in the baseline scenario, then all CO₂ emissions from electricity used in the processing and fossil fuel used in both the processing and transport of material between the processing site and the project, must also be accounted for using Equation 5.12 below.”

7. Biogas Venting Events and Temporary Project Shutdowns (CLARIFICATION – January 21, 2014)

Section: 5.2.2.1 (Biogas Venting Events)

Context: The paragraph on page 37 explains the circumstances under which a project must quantify project emissions due to a venting event. A temporary project shutdown is distinct from a venting event. In certain situations, the project BCS may be shut down for an extended period of time. These events are characterized by a venting event on the day of the shutdown and then a cessation of project activities until the BCS is once again operable.

Clarification: The following text shall be inserted following the guidance in Section 5.2.2.1 on page 37:

“A temporary project shutdown is distinct from a venting event. In certain situations (e.g. major maintenance or repairs) the project BCS may be shut down for an extended period of time. These events are characterized by a venting event on the day of the shutdown and then a cessation of project operations until the BCS is once again operable. In cases where the project BCS is shut down for an extended period of time, the project must quantify the release of stored biogas (MS_{BCS} in Equation 5.15) at the time the system is shut down, but not the subsequent daily release of biogas from the temporary storage system (i.e. by setting $t = 0$). The project will cease reporting of emission reductions until the BCS is once again operational. However, the project developer must be able to provide evidence to demonstrate that project emissions did not exceed baseline emissions during this period. This is achieved by demonstrating that the management of waste during the shutdown is either the same as the baseline scenario for that waste stream (i.e. unheated lagoon for wastewater and manure or landfill for food waste) or is more aerobic than the baseline management scenario.”

8. Equation and Table References for Anaerobic Treatment of Digestate (ERRATUM – January 21, 2014)

Section: 5.2.5 (Project Emissions from Anaerobic Disposal of Digestate Produced in the Digestion Process (SSR 18))

Context: The first paragraph of this section on page 41 provides guidance regarding how to account for the anaerobic treatment of residual digestate. The final two sentences of this paragraph contain erroneous equation and table references.

Correction: In the first paragraph of Section 5.2.5 on page 41, the reference to Equation 5.15 shall be changed to Equation 5.18, and the reference to Table B.1 shall be changed to Table B.3.

9. Calculating Metered Methane Destruction (ERRATUM – November 1, 2018)

Section: 5.3 (Calculating Metered Methane Destruction (Equation 5.20))

Context: The first equation in this protocol, Equation 5.1 provides guidance for calculating emission reductions, following the Reserve’s standard methodology of subtracting project emissions from baseline emissions, to get emission reductions. For this protocol, project developers must calculate the baseline using two alternative approaches (metered vs modelled), and use the lower of these two baseline values in this first equation. Irrespective of which baseline value must be used, Equation 5.1 directs that project emissions (represented as PE), must then be subtracted from the baseline emissions. PE is then calculated in Section 5.2.1, in Equation 5.13, including by accounting for the Biogas Destruction Efficiency (BDE) of the given destruction devices used. BDE is also taken into account in Section 5.3, in Equation 5.20, when calculating the total volume of methane metered during the reporting period (CH_4 destroyed). In effect, the incomplete combustion of methane is incorrectly taken into account twice, instead of just once, via the application of BDE in both of these two equations, when using the metered baseline approach, resulting in erroneously lower emission reductions.

Correction: A BDE value of 1 should be used in Equation 5.20 in Section 5.3, on page 43 of the protocol, when using the metered baseline approach.

Section 6

10. Monitoring of Offsite Transport of Digestate (CLARIFICATION – January 21, 2014)

Section: 6.1.4.2 (Digestate Material)

Context: This section provides guidance on the monitoring and recording requirements for project activities relating to the treatment of digestate. The section does not contain specific guidance for treatment methods other than disposal at a landfill.

Clarification: The guidance in this section shall apply equally to all anaerobic treatment methods and not just treatment at a landfill. The following text shall be inserted as a footnote to the word “landfill” in the first sentence of Section 6.1.4.2 on page 47:

“The guidance in this section shall be read to apply equally to digestate material that is treated in an anaerobic system other than a landfill.”

11. Metering Multiple Destruction Devices (CLARIFICATION – October 26, 2011)

Section: 6.2 (Biogas Control System Monitoring)

Context: Footnote 43 on page 48 states that: “A single meter may be used for multiple, identical destruction devices. In this instance, methane destruction in these units will be eligible only if both units are monitored to be operational.”

The Reserve has determined that in certain situations it may be acceptable for one flow meter to be used to monitor the flow of gas to multiple destruction devices without fulfilling the requirement that they be identical or that they all be operational. Such an arrangement will require extra steps for verification, depending on the situation and the monitoring data that are available.

Clarification: The following text shall replace footnote 43 on page 48:

“A single flow meter may be used for multiple destruction devices under certain conditions. If all destruction devices are of identical efficiency and verified to be operational, no additional steps are necessary for project registration. Otherwise, the destruction efficiency of the least efficient destruction device shall be used as the destruction efficiency for all destruction devices monitored by this meter.

If there are any periods when not all destruction devices are operational, methane destruction during these periods will be eligible provided that the verifier can confirm all of the following conditions are met:

- a. The destruction efficiency of the least efficient destruction device in operation shall be used as the destruction efficiency for all destruction devices monitored by this meter; and
- b. All devices are either equipped with valves on the input gas line that close automatically if the device becomes non-operational (requiring no manual intervention), or designed in such a manner that it is physically impossible for gas to pass through while the device is non-operational; and
- c. For any period where one or more destruction device within this arrangement is not operational, it must be documented that the remaining operational devices have the capacity to destroy the maximum gas flow recorded during the period. For devices other than flares, it must be shown that the output corresponds to the flow of gas.”

12. Monitoring the Operational Activity of Destruction Devices (CLARIFICATION – January 21, 2014)

Section: 6.2 (Biogas Control System Monitoring)

Context: The last paragraph of page 48, and the paragraph following it, state that “[o]perational activity of the destruction devices shall be monitored and documented at least hourly to ensure actual methane destruction. ... If for any reason the destruction device or the operational monitoring equipment...is inoperable, then all metered biogas going to the particular device shall be assumed to be released to atmosphere...[and] the destruction efficiency of the device must be assumed to be zero.”

Certain types of destruction devices, such as internal combustion engines and most large boiler systems, are designed in such a way that gas may not flow through the device if it is not operational. It has not been clear how the requirements of Section 6.2 apply to these devices.

Clarification: The first sentence of the last paragraph on page 48 shall be read to apply to all destruction devices in use during the reporting period.

The paragraph inserted on page 48 of Section 6.2, by the Organic Waste Digestion Project Protocol Version 2.0 Errata and Clarification dated October 26, 2011, starting with the text “[a] single flow meter may be used...,” shall not be construed to relax the requirement for hourly operational data for all destruction devices. Rather, that paragraph is allowing a specific metering arrangement during periods when one or more devices are *known* to be not operating. All destruction devices must have their operational status monitored and recorded at least hourly. If these data are missing or never recorded for a particular device, that device will be assumed to be not operating and will be assigned a destruction efficiency of zero for all flow data that are assigned to that device.

13. Equation Reference for Monthly BDE Value (ERRATUM – January 21, 2014)

Section: 6.2 (Biogas Control System Monitoring)

Context: The first paragraph on page 49 gives guidance on how to adjust the biogas destruction efficiency (BDE) value for any periods of inoperability. The second to last sentence of this paragraph incorrectly directs project developers to adjust the BDE in Equation 5.10, instead of the correct equation, which is Equation 5.13.

Correction: The reference to Equation 5.10 in the first paragraph on page 49 shall be changed to reference Equation 5.13.

14. Field Check Requirements for Biogas Monitoring Equipment (CLARIFICATION – January 21, 2014)

Section: 6.2.1 (Biogas Measurement Instrument QA/QC)

Context: The second paragraph following the first bulleted list in Section 6.2.1 states that “[i]f the field check on a piece of equipment reveals accuracy outside of a +/- 5% threshold, calibration by the manufacturer or a certified service provider is required for that piece of equipment.”

Certain types of gas flow meters and methane analyzers are susceptible to measurement drift due to buildup of moisture or contaminants on the metering sensor, even if the equipment itself is not out of calibration. If the “as found” condition of the meter is outside of the accuracy threshold, but the “as left” condition (after cleaning) is within the accuracy threshold, it is not clear whether a full calibration is still required for this piece of equipment. In some cases the manufacturer provides specific guidance to this effect.

Clarification: The following text shall be inserted after the second paragraph following the first bulleted list in Section 6.2.1:

“The “as found” condition (percent drift) of a field check must always be recorded. If the meter is found to be measuring outside of the +/- 5% threshold for accuracy, the data must be adjusted for the period beginning with the last successful field check or calibration event up until the meter is confirmed to be in calibration. If, at the time of the failed field check, the meter is cleaned and checked again, with the “as left” condition found to be within the accuracy threshold, a full calibration is not required for that piece of equipment. This shall be considered a failed field check, followed by a successful field check. The data adjustment shall be based on the percent drift recorded at the time of the failed field check. However, if the “as left” condition remains outside of the +/- 5% accuracy threshold, calibration is required by the manufacturer or a certified service provider for that piece of equipment.”

15. Methane Analyzer Factory Calibrations (CLARIFICATION – November 1, 2018)

Section: 6.2.1 (Biogas Measurement Instrument QA/QC)

Context: The second bullet in the list at the beginning of this section (page 49) states that “[all gas flow meters and continuous methane analyzers must be] calibrated by the manufacturer or a certified calibration service per manufacturer’s guidance or every 5 years, whichever is more frequent.”

The principle underlying this requirement is the need to ensure data integrity. More specifically, the intent of this requirement is that meters meet such requirement every time they are used to gather data that is used in project emission reduction quantification. If a meter was out of conformance with this calibration requirement during a portion of the reporting period when it is not in use, but is brought back into conformance with this requirement before again being used to gather data which is used for project emission reduction calculations, then the underlying intent of this requirement is met.

Clarification: The following text shall be inserted after the second bulleted point at the beginning of Section 6.2.1:

“Conformance with this requirement is only required during periods of time where data gathered by the meter are used for emission reduction quantification. Periods where the meter did not meet this requirement will not cause the project to fail this requirement, provided the meter was not being used for project emission reduction quantification during such periods, and provided the meter was brought back into conformance before being employed to gather data which is used for project emission reduction quantification.”

Section 8

16. Incorrect References (ERRATUM – January 21, 2014)

Section: 8.5.2 (Quantification) and 8.5.3 (Risk Assessment)

Context: Tables 8.3 and 8.4 on pages 70-71 contain specific verification guidance. This guidance contains a number of references to other sections or tables in the protocol which were renumbered when the protocol was updated from V1.0 to V2.0, but the references were not updated.

Correction: The following references shall be updated:

Location of Reference	Existing Reference	Corrected Reference
Table 8.3, page 70, 9 th item	Section 6.1.2.2	Section 6.1.3.2
Table 8.3, page 71, 2 nd item	Table 5.1	Table 5.2
Table 8.4, page 71, 7 th item	Section 6.1.2.1	Section 6.1.3.1
Table 8.4, page 71, 8 th item	Section 6.1.2.2	Section 6.1.3.2

Appendix B

17. Service Providers for Site-Specific Destruction Efficiency Testing (CLARIFICATION – January 21, 2014)

Section: Appendix B, Table B.6 (Biogas Destruction Efficiency Default Values by Destruction Device)

Context: The guidance provided at the first asterisk following Table B.6 in Appendix B states that service providers used to determine site-specific values for methane destruction efficiency must be “state or local agency accredited.” It is not clear what specific options are available and permissible for projects located in a state or locality which does not have an accreditation program for source test service providers.

Clarification: The intent of this requirement is to ensure that any source testing conducted for the determination of a site-specific value for methane destruction efficiency is of a quality that would be acceptable for compliance by a regulatory body. The following text shall be added to the end of the guidance provided at the first asterisk following Table B.6 in Appendix B:

“If neither the state nor locality relevant to the project site offer accreditation for source testing service providers, projects may use an accredited service provider from another U.S. state or domestic locality. Alternatively, projects may choose a non-accredited service provider, under the following conditions: 1) the service provider must provide verifiable evidence of prior testing which was accepted for compliance by a domestic regulatory agency, and 2) the prior testing procedures must be substantially similar to the procedures used for determining methane destruction efficiency for the project destruction device(s).”