

Organic Waste Digestion Project Protocol Version 2.1 Public Webinar



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February 12th, 2014

We will begin shortly

For audio, please dial: (914) 339-0029

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Agenda

- Presentation of major changes from V2.0 to V2.1
- Questions and Discussion



Why Version 2.1?

- Incorporate errata and clarifications
- Incorporate policy memos issued since 2011
- Incorporate relevant updates from OWC v1.1 and LS v4.0
- Respond to user feedback
- Increase the usability of the protocol
- Increase flexibility where possible

Policy memos



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Project Diagram Required at Verification (February 13, 2012)

- New requirements for a project diagram
- Part of Monitoring Plan and includes all parties involved



Policy memos

Environmental and Social Safeguards Policy (September 27, 2012)

- New language under Regulatory Compliance section
- Only those parties involved with project implementation are responsible for conformance



Errata & Clarifications

- There was 1 E&C issued
- October, 26th 2011
- Guidance for metering multiple destruction devices with a single flow meter
- NOTE: Additional E&C were released along with the protocol update (January 21, 2014)

Updated Project Start Date guidance (Section 3.2)



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- Clarified to make clear that the start date is not triggered by *any* potentially eligible waste – but only when project begins digesting an eligible waste stream which is intended to be included in the project
 - Eligibility is focused on the individual waste streams, rather than the physical BCS
 - In other words, an otherwise eligible waste stream may be ineligible because it was digested prior to the start date

Clarified Anaerobic Baseline Guidance (Section 3.4)



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- **3.4.1 – Projects accepting manure**
 - Use most recent LSPP version at time of submittal
 - OWD takes precedent if there are inconsistencies between the protocols
- **3.4.2 – Greenfield Agro-Industrial WW facilities**
 - Project itself may be eligible
 - In-house WW from the facility is NOT eligible
 - Other external waste streams may be eligible

Clarified Anaerobic Baseline Guidance (Section 3.6)



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- Updated Regulatory Compliance requirements to reflect Reserve’s Environmental and Social Safeguards Policy (September 27, 2012)
 - Focus on causality – violation considered to be “caused” by project activities if violation would not have occurred in the absence of the project activities
 - PD shall disclose all violations to verifier and verifier determines if requisite causality exists

New Ownership Guidance (Section 3.7)



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- If project also receiving additional credits/payments related to environmental attributes of GHG emission reductions – need to demonstrate double claiming is not occurring
- Must demonstrate to verifier that parties providing those payments/credits are not in/directly asserting claim to project emission reductions
- PD should provide verifier with ToR, contracts, program rules, etc. – associated with the credits/payments

Determining fraction of eligible waste – mixed MSW (Section 5.1.1.2)



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- Adopted 4 options for quantifying mixed MSW waste streams used in OWC v1.1:
 1. National default factor (*updated from 18% to 20%*)
 2. Published waste characterization study;
 3. Site-specific characterization study – (MRF fines only)
 4. Site-specific study – non-SSO MSW from a **single source facility**

Determining fraction of eligible waste – mixed MSW (Section 5.1.1.2)



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- Option 4: Single Source Facility – Non-SSO Mixed MSW
 - Site-specific sampling
 - Applies only to non-SSO MSW from a single source facility (e.g. single MRF, convention center, sports complex)
 - Requirements:
 - Random sampling;
 - Hand sorting at least 4 x 150 lb samples into categories (food, soiled paper, ineligible waste);
 - Quantify proportional weights of food/soiled paper in each sample and determine averages for the entire load
 - Min 8 sampling events (2 per quarter) in 1st year – 4 events in subsequent years (1 per quarter)
 - Photos/documentation recorded for verification

Project Emissions from Fossil Fuel Combustion (Section 5.2.1)



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- Updated to make guidance more clear about accounting for emissions from any offsite pre-processing of eligible waste.

Biogas Venting & Temporary Project Shutdown (Section 5.2.2.1)



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- New guidance distinguishes temporary project shutdown from venting event.
- Temporary shutdown = BCS shut down for extended period of time (i.e. to make significant repairs)
- Project must quantify release of stored biogas – but not the subsequent daily release of biogas from the temporary storage system (i.e. by using a t value of 0).
- Project ceases quantification of ERs until BCS operational.
- Must demonstrate project emissions do not exceed baseline emissions during this period
 - Show management of waste was same as baseline or was aerobic

Project Emissions from Digestate (Sections 5.2.4 & 5.2.5)



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- **5.2.4 Aerobic treatment** – updated to include project emissions from *offsite* aerobic treatment of digestate (e.g. digestate returned to originating farm)
- **5.2.5 Anaerobic treatment** – all such waste treated as if went to landfill, regardless of treatment method – use default emission factors
 - Corrected erroneous equation/table references

Site-Specific Maximum Methane Potential (B_0) (Section 6.1.3.2)



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- The sampling procedure is the same
- Added guidance for ensuring laboratory competency
 - Based on process developed for LSPP

BCS Monitoring (Section 6.2)



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- **CH₄ concentration** must be measured no less than once for every three month period
- **Single flow meter can be used to monitor multiple destruction devices**
 - Destruction devices must have identical destruction efficiency, or apply lowest DE to all devices
 - All devices verified operational at all times
 - May allow for periods of non-operation if certain conditions are met

BCS Monitoring (Section 6.2)



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- Where **operational data** show any device in the many:one arrangement is not operational, following criteria apply:
 - Device must not be able to vent when not operational – i.e. automatic shut off valve or physical designed not to let gas through;
AND
 - For periods where one or more devices are non-operational you must show remaining operational devices have capacity to destroy the max gas flow recorded during the period
 - For devices other than flares – must show output corresponds to flow

BCS Monitoring (Section 6.2)



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- **Operational activity of destruction devices** must be documented at least hourly
 - Except for destruction devices which receive less than 10% of total biogas generated during reporting period;
 - Provided the device not be able to vent when not operational – i.e. shut-off valve or designed not to let gas through;
 - These devices need not be monitored for operational status.

Biogas Measurement Instrument QA/QC (Section 6.2.1)



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- If field check reveals **drift outside +/-5%** the project developer has option record as-found (% drift) – then clean equipment and conduct 2nd field check – *if this is recommended by the manufacturer*
 - If 2nd field check indicates measurement accuracy within +/-5% no further calibration required
 - All data - back to last successful field check - must be adjusted based on the % drift recorded during the first field check
 - If 2nd field check confirms drift outside +/-5% - calibration by manufacturer/certified service provider is required



Updated Appendices

- Gas collection fractions by state - new Table B.3
- Updated defaults for biogas collection efficiency by digester type – Table B.5
- Site-specific destruction efficiency testing – updated guidance for appropriate test service providers
 - If no state accreditation for sources test service providers, can use source test provider whose prior test results have been officially recognized by relevant regulatory agency – provided past work was substantially similar
- Example project diagram – Appendix E

Compost BMP monitoring (Section 6.3.1)



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- Updated guidance for placement of temperature probes:
 - OLD (v1.0): “at least 12-24 inches below the pile surface”
 - NEW (v1.1):
 - Windrow: “no more than 24 inches below the pile surface”
 - ASP: “no more than 18 inches below the pile surface”
 - Regulated Systems (*next slide*)

Compost BMP monitoring (Section 6.3.1)



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- Alternative temperature probe arrangement for “Regulated Systems” where:
 - The compost facility can demonstrate regulatory approval for a system (e.g. local or state operating permit) – as installed;
 - Approval includes written confirmation that system is sufficient to ensure aerobic activity
 - Approval contains monitoring arrangement
 - Compliance with the monitoring arrangement = compliance with protocol BMP requirements;
 - **Verifier to confirm temperature monitoring in conformance with permitted arrangement**

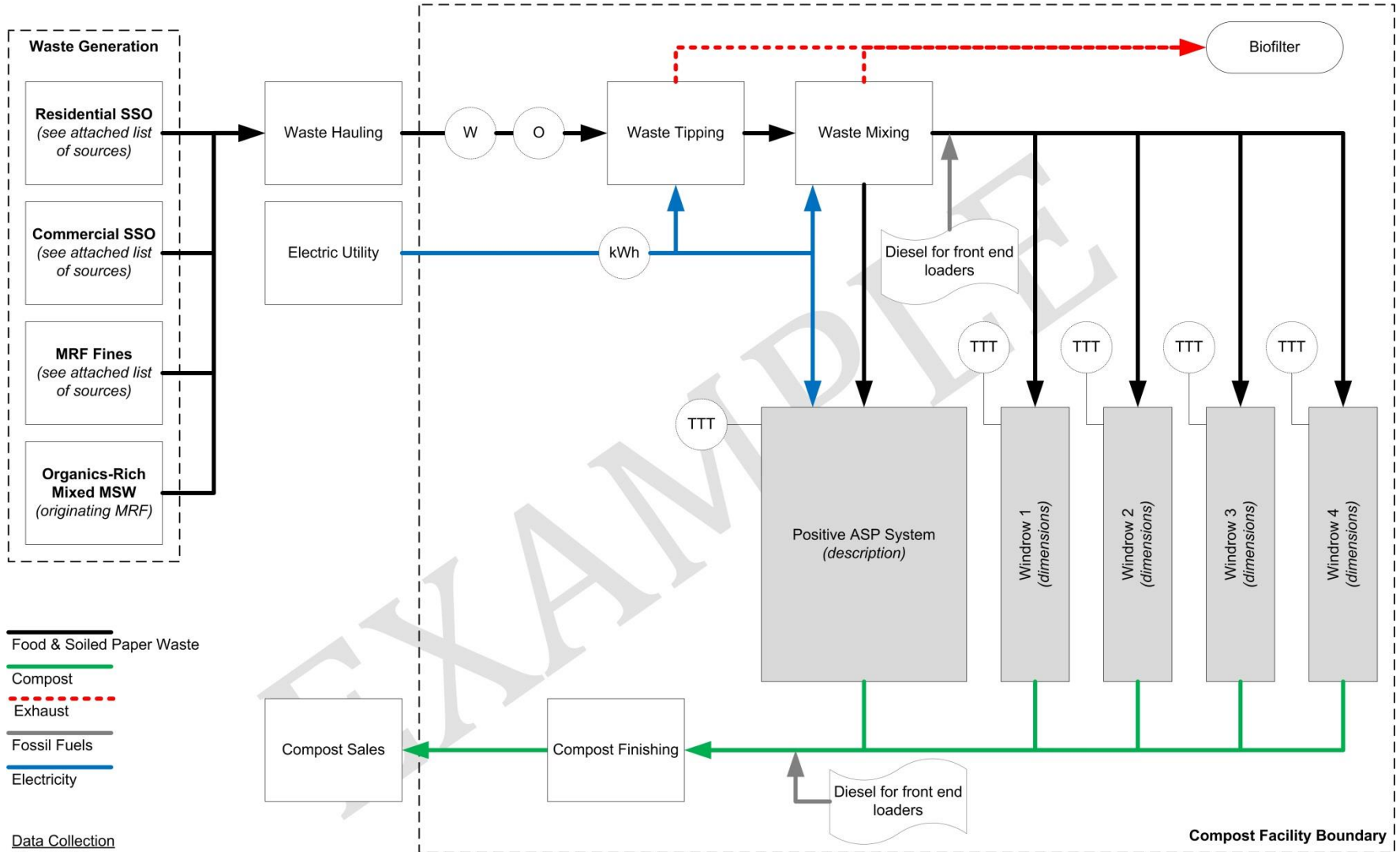
Project Reporting (Section 7.1)



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- New documents required at verification:
 - All projects should submit a project system diagram (part of the monitoring plan)
 - Projects co-digesting with eligible manure must submit the Reserve Livestock Calculation Tool (if used)

Generalized Organic Waste Composting Project System Diagram



Compost Facility Name: **EXAMPLE COMPOSTING**
 Project start date: **MM/DD/YYYY**
 Facility owner: **EXAMPLE WASTE, LLC**
 Reserve Account Holder: **EXAMPLE, INC.**
 Technical Consultant: **EXAMPLE CONSULTING, LLC**

Diagram last updated: 05/01/13



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Questions?



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