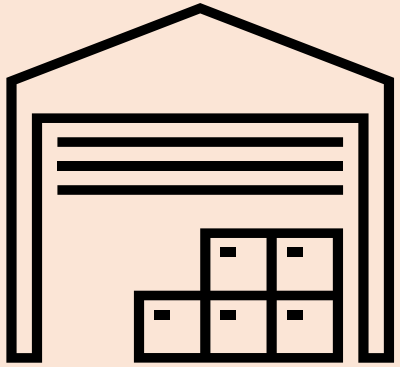
SB 1383 Facility Requirements Overview

Slides from Recorded Training: SB 1383 Solid Waste Facility Requirements Training - YouTube

CalRecycle

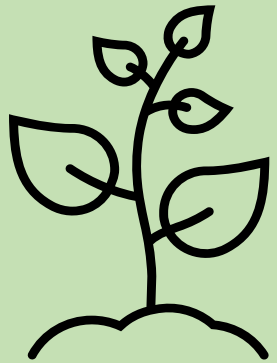
Agenda

1. How Facility Requirements help reach SB 1383's goals
2. Transfer Processor: Determining Measurement Requirements
3. Transfer Processor: Recordkeeping & Reporting Requirements
4. Transfer Processor Detailed Scenario
5. Incompatible Materials Limit for Recovered Organics
6. Compost & IVD: Determining Measurement Requirements
7. Compost & IVD: Recordkeeping & Reporting Requirements



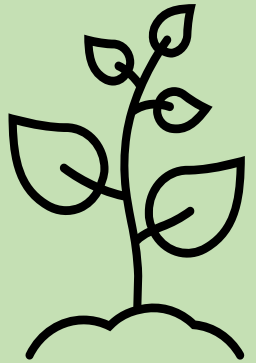
Transfer/processor

Excludes: Recycling centers that pass the 3-part test [17402.5(d)]



Composter

Includes: Chip & Grind operations (unless chip & grind is a permitted T/P)



In-Vessel Digestor

Excludes: IVDs that are not permitted solid waste activities, like IVDs at POTWs [17896.6]

What are the requirements for transfer/processing facilities and operations?

Determine amount of organics recovered and organics disposed from California's transfer/processing facilities and operations (T/P):

- Calculate % organic recovery rate with measurements on source separated organic waste streams (SSO) and mixed waste organic streams (MO)
- How do we determine the % organic recovery rate at T/Ps?
  - From sampling data submitted quarterly:
    - Amount of organic material sent for further processing, recovery, end use (17409.5.2 & 17409.5.4)
    - Amount of organics in material sent to disposal (17409.5.3 & 17409.5.5)

What are the requirements for transfer/processing facilities and operations receiving MO?

CalRecycle will determine whether a facility isa *high diversion organic waste processing facility* depending on the last four quarters of reported data on their **MO streams only.**

If the T/P's annual recovery efficiency is below the threshold?

Implications for where jurisdictions can send their MO stream – can only send to high diversion facility.

<u>Annual recovery efficiency must be:</u>

50% on and after Jan 1, 2022

75% on and after Jan 1, 2025

What are the requirements for transfer/processing facilities and operations receiving SSO?

CalRecycle will determine whether a facility is a *designated source separated organic waste facility* depending on the "recovery efficiency" of their **SSO streams only.**

If the recovery efficiency is lower than the threshold for 2 consecutive reporting periods, or 3 reporting periods within 3 years, the facility will not be a designated facility.

What happens if a T/P doesn't qualify?

Implications for where jurisdictions doing a performance-based collection service can send SSO - can only send to designated facilities.

Recovery efficiency threshold:

50% on and after Jan 1, 2022

75% on and after Jan 1, 2025

Important to Remember

A high diversion organic waste processing facility is a facility that meets or exceeds an annual average recovery efficiency of 50% (75% on and after Jan 1, 2025) based on the sums of outgoing weights of organics recovered and disposed from the **MO stream only.**

What are other requirements for transfer/processing facilities and operations?

- If a T/P has too much “incompatible material” (> 20%) in their SSO and MO streams, then they are limited in where they can send organic material for further processing, recovery or end use. (17409.5.8)

- Also, T/Ps must measure gray container waste stream to see how much organic material left in "trash" (17409.5.7).

What are the requirements for compost and in vessel digestion activities?

Determine how much organic material is being disposed.

These facilities do not perform any measurements on material sent for further processing, recovery or end use.

- Ex. finished compost, biogas, finished mulch products, material sent to a transfer processor

What are the requirements for composters?

For composters, CalRecycle will determine whether they are a *designated source separated organic waste facility.*

If the amount of organics in material sent to disposal is higher than the threshold for 2 consecutive reporting periods, or 3 reporting periods within 3 years, the facility will not be a designated facility.

What happens if a composter doesn't qualify?

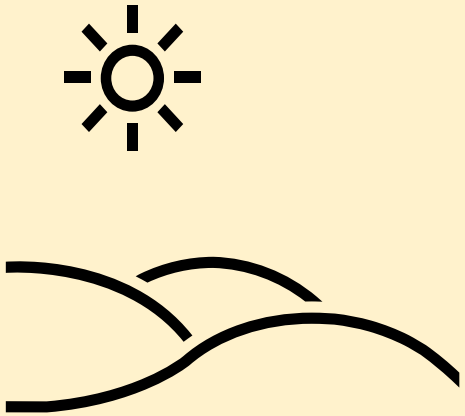
Implications for where jurisdictions doing a performance-based collection service. They can only send SSO to designated facilities.

Organics in material sent to disposal threshold

<20% on and after Jan 1, 2022

<10% on and after Jan 1, 2024

What about landfills?



Landfill

- **No measurement requirements.** But, permitted T/Ps and compost/IVD facilities co-located at landfills do have to measure.
- **But other new requirements for landfills:**
  - Organic Disposal Reduction Status Impact Report due Jan 1, 2023
  - New requirements for new or expanding landfills [20750.1]
  - New Operator-Led public meeting requirement applies to landfills too [21570(g)]

Determining Measurement Requirements for a Transfer Processor

How to determine what's required at T/Ps

1. What material streams does the facility handle?

2. Could the facility be a consolidation site?

3. Is there processing happening on-site?

4. Where is the material going when it leaves the facility?

1. What streams does the facility handle?

Does the facility receive material subject to regulations:

- Source separated organic waste (SSO),
- Mixed waste organics (MO) and/or
- Gray container waste?

Does the facility receive material <u>not</u> subject to regulations:

- Construction & Demolition waste,
- Specialty waste (tires, e-waste, appliances) and/or
- Waste from an area with rural exemption or low population waiver?

Source Separated Organic Waste Collection Stream (SSO)

Organic waste collected in a blue container, green container, an additional organics container, and organic waste collected in an uncontainerized green waste and yard waste collection service. This also includes source separated organics that are self-hauled to a transfer/processing facility (i.e. yard waste, recyclables).

Mixed Waste Organic Collection Stream (MO)

Organic waste collected with recyclables and/or items destined for the landfill collected in the same container. This also includes self-hauled materials that are mixed with organics. These streams are required to be transported to a high diversion organic waste processing facility.

Gray Container Waste Collection Stream

Waste collected in a gray container that is part of a three-bin system. Jurisdiction must prohibit the placement of organic waste in the gray container. If a self-hauler hauls material that is source separated, the facility may consider the “trash or solid waste” (the non-organic waste or non-recyclables) part of the gray container stream.

Common jurisdiction collection systems

One-bin system

MO

All materials collected in one bin

Two-bin systems

MO SSO

2-bin system with yard & food waste in green bin and recyclables and trash in the gray bin

MO SSO

2-bin system with traditional recyclables in blue bin and organics and trash in gray bin

3-bin system

SSO SSO Gray

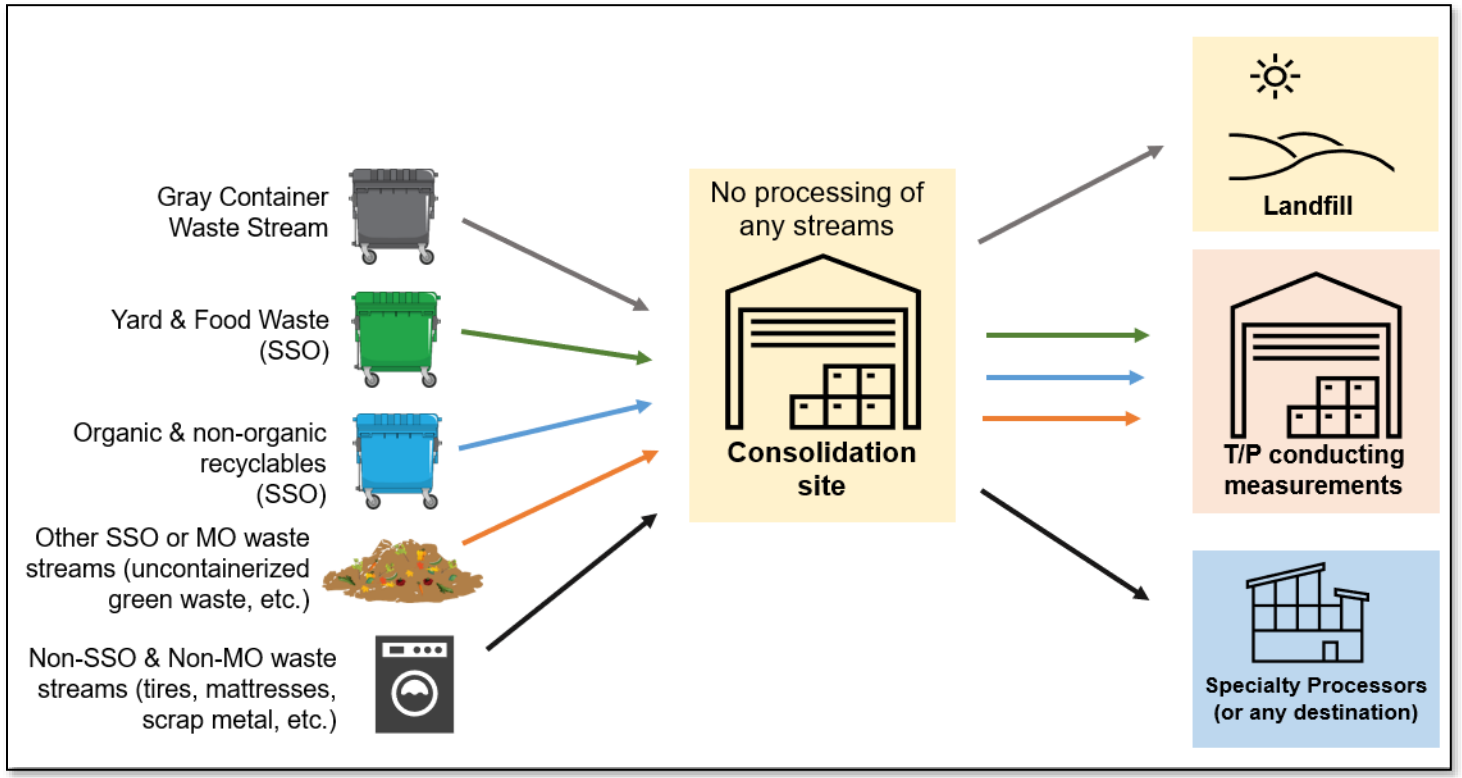
3-bin system with traditional recyclables in blue bin, food & yard waste in green and remaining trash (no organics) in gray bin

2. Could the transfer processor be the consolidation site?

A consolidation site is a T/P that:

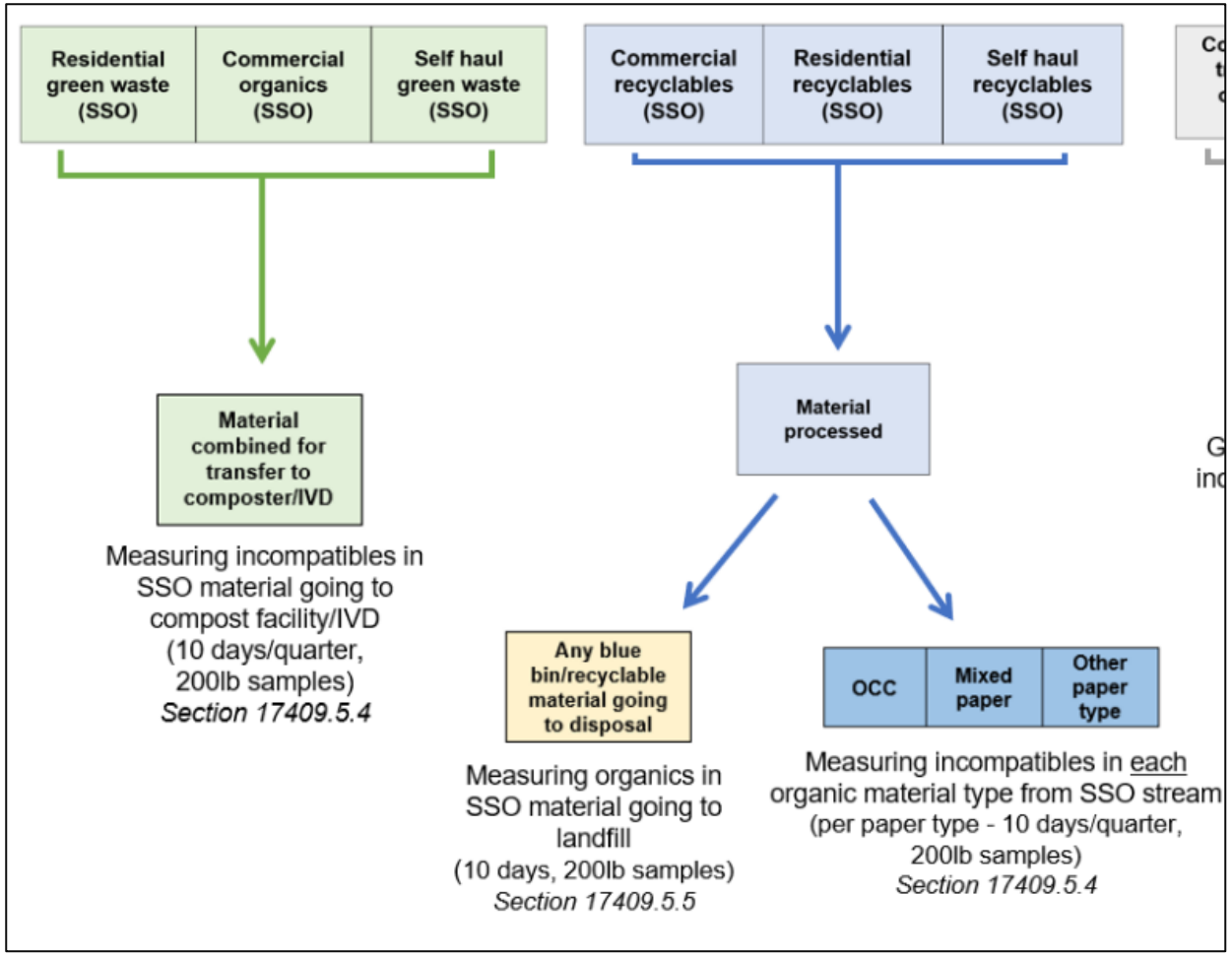
- Keeps SSO streams separate from other waste
- Does not conduct processing activities on <u>any</u> incoming streams; and
- Sends MO and SSO material to T/Ps that conduct measurements <u>only</u>.

If the T/P meets these criteria, then it does <u>not</u> need to conduct measurements on SSO, MO and gray container waste streams.



3. Is there processing occurring on-site?

- Unless a facility/operation is a consolidation site, the facility must perform measurements on all SSO, MO and gray container waste streams.
- The facility/operation must perform measurements regardless of whether those streams are processed or not.
- In Section 17409.5.2 - 17409.5.5, the phrase "*shall measure…after processing*" is used to denote that if material is processed at the site, then the measurement is performed after processing and prior to being sent off-site for recovery or disposal.



From Measurement Scenario 2 in the 1383 Guidance: Example Scenarios

4. Where is the material going when it leaves the facility?

☑ Is any SSO or MO material sent off-site for further processing, recovery or end use?

- Is it going to another T/P?
- Is it going to a compost facility or in-vessel digestor?
- Is it being sold to a broker for export (i.e. baled material)?

Then the facility needs to perform measurements as outlined in Sections 17409.5.2 (for MO) and 17409.5.4 (for SSO).

4. Where is the material going when it leaves the facility? (cont.)

- ☑ Is any SSO or MO material sent off-site for landfill for disposal ("destined for disposal")?
- ☑ Any organic material sent for ADC/AIC? This is considered disposal under SB 1383.

Then the facility needs to perform measurements as outlined in Sections 17409.5.3 (for MO) and 174095.5 (for SSO).

4. Where is the material going when it leaves the facility? (cont. 2)

☑ Is the facility receiving and handling gray container material?

If the facility receives more than 500 tons of gray container waste from a single jurisdiction annually, then the facility needs to perform the measurement outlined in Section 17409.5.7 (Gray Container Waste Evaluation).

I know where it's going and what happens to it, so what gets measured?

Organics Recovered (SSO: 17409.5.4 & MO: 17409.5.2)

Sample each organic material type leaving facility for further processing, recovery or end use (cardboard, mixed paper, green waste, food waste, etc.) to determine amount of **recoverable organics** and **incompatible material** present.

Organics Disposed (SSO: 17409.5.5 & **MO:** 17409.5.3)

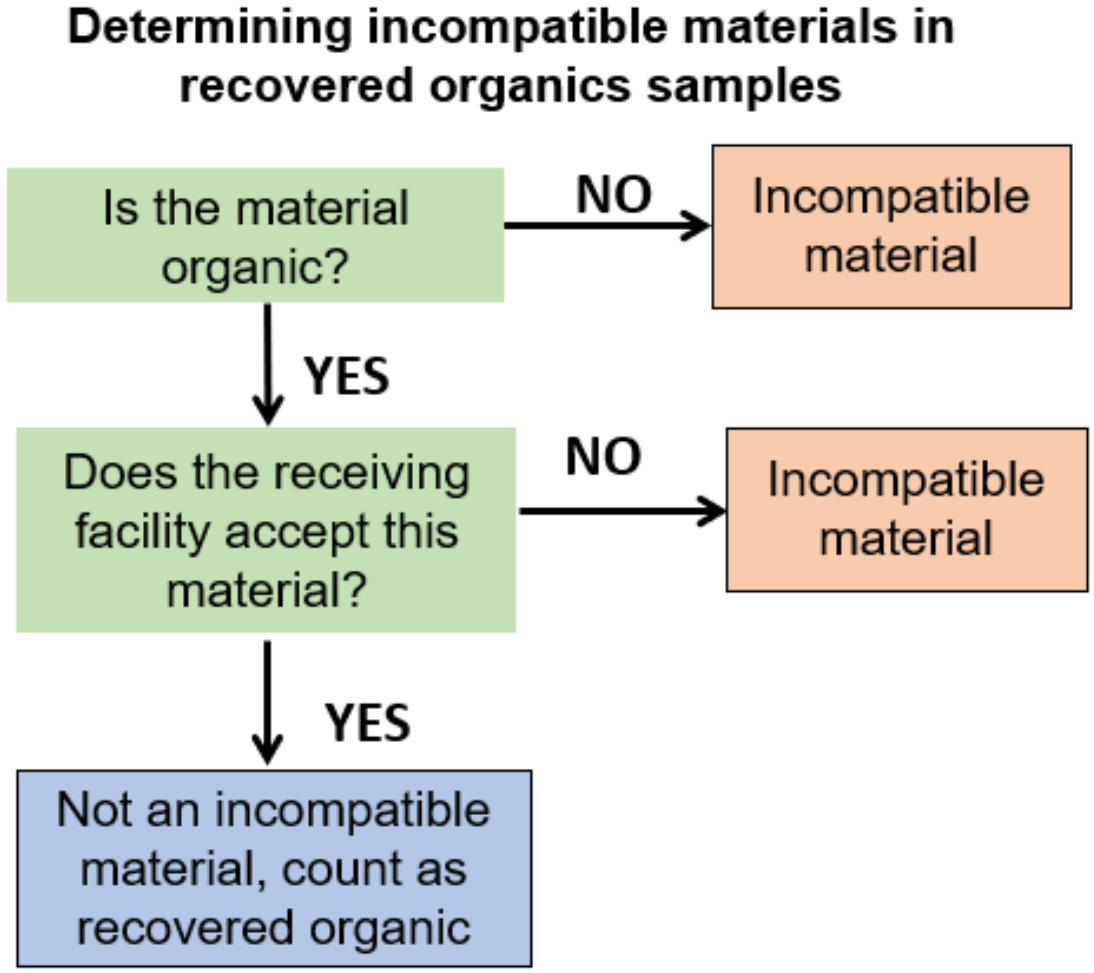
Sample all material destined for disposal to determine amount of **organic material** and **non-organic material** present. (all MO streams together and all SSO streams together)

Remnant Organic Material (**Gray Container:** 17409.5.7)

Sampling incoming stream, before any processing, to determine **amount of organic material** present. This is called remnant organic material. This term only applies to the gray container stream.

"...What is incompatible material?"

- Measured in all SSO and MO materials sent out for further processing, recovery or end use.
- Not just "contamination".
- It's non-organic material **AND** any organic material that the receiving facility is not designed/permitted/authorized to accept or recover.
- Once incompatible material is taken out for a sample, it can be put in the stream of material headed to landfill (once that SSO/MO disposal stream has been sampled).



How many measurements does a facility take?

Requirement: Operators must sample SSO and MO streams for 10 consecutive operating days per quarter, on the days that material is leaving the facility.

What if facility only operates 2-3 days a week?

If the facility were open two days a week, then the measurement period would be five consecutive weeks long.

What if the facility only sends out material every other day?

Operators would only take a sample on the day material is sent out within the ten consecutive operating day period (so five total samples of that stream in the quarter)

Measurement period sampling example

Outgoing Material Type	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Total Samples
SSO: Mixed Paper			X		X	N/A	N/A	X			X		4
SSO: Old Corrugated Cardboard (OCC)						N/A	N/A		X				1
SSO: Green Waste to Compost Facility	X	X		X		N/A	N/A	X	X	X			6
SSO: Material to Landfill		X	X	X		N/A	N/A	X			X	X	6
MO: Processed Mixed Organics to Anaerobic Digestor Operation		X		X		N/A	N/A	X		X		X	5
MO: Material to Landfill		X		X				X			X		4

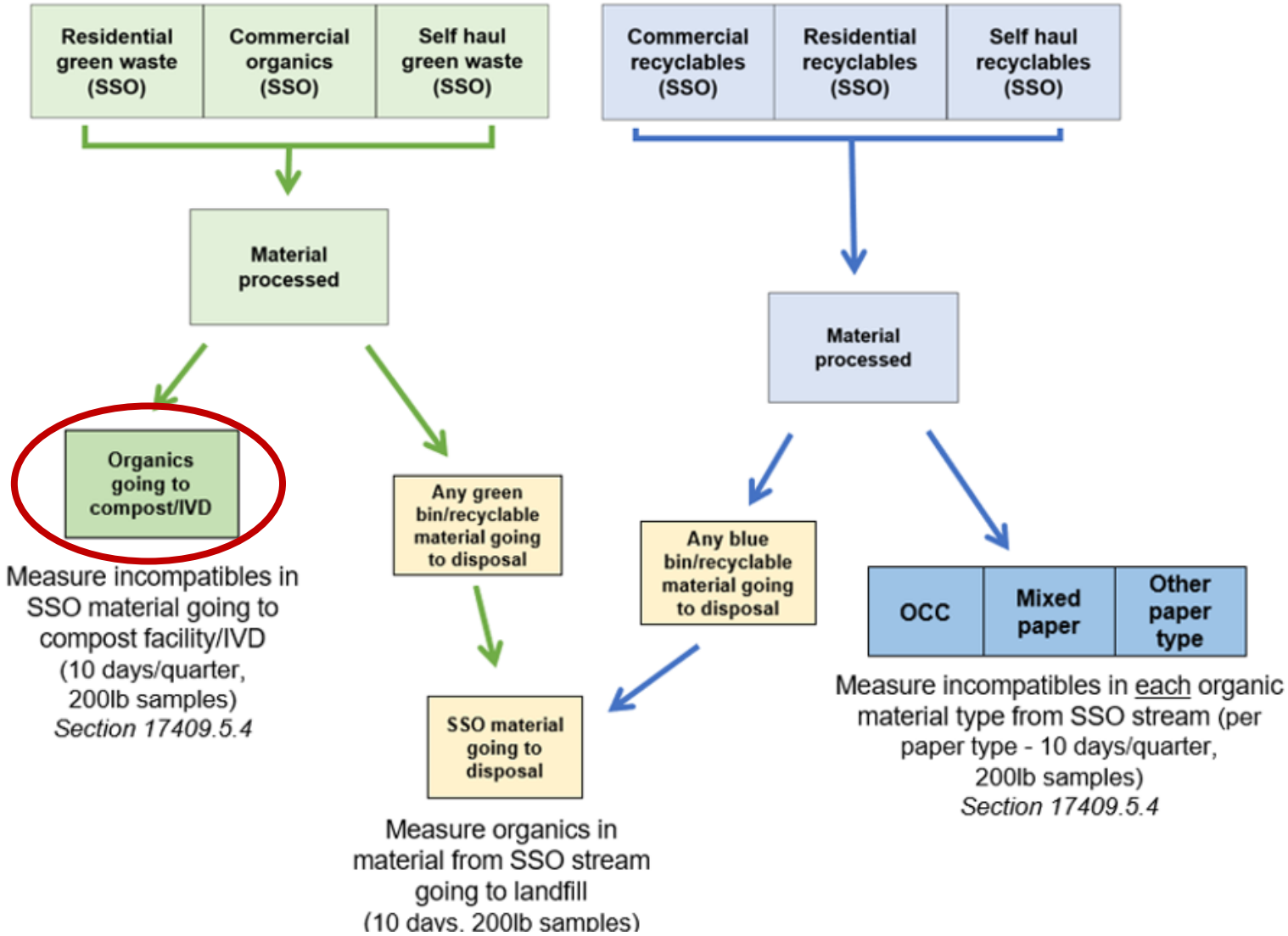
X indicates a day that the material left the facility. Sat and Sun the facility is closed so not counted toward 10-day measurement period.

SSO Stream Facility Flows & Sampling Video

SB 1383 Measurement Demonstration:

[Measuring SSO (Recovery) at a Transfer/Processing Facility]

Diagram found in [Examples of Required Measurements Guidance].



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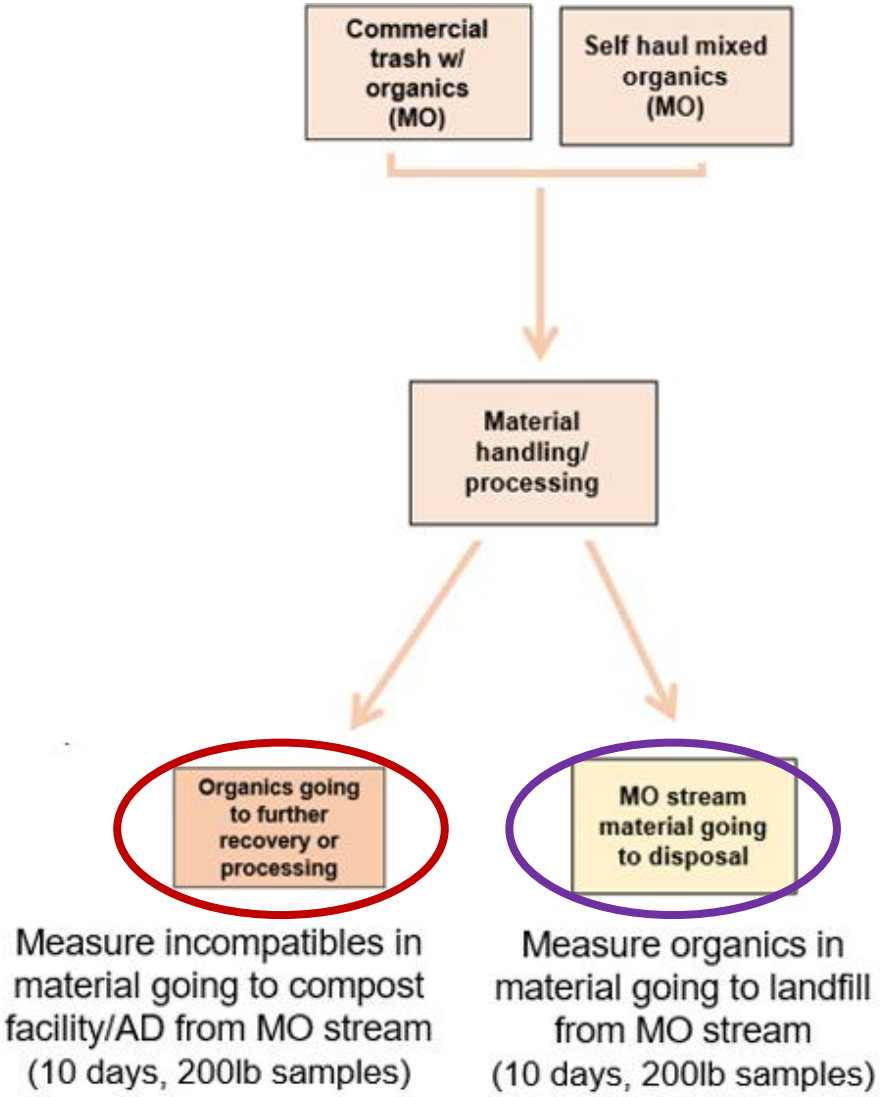
MO Stream Facility Flows & Sampling Videos

SB 1383 Measurement Demonstration: Measuring MO (Recovery) at a Transfer/Processing Facility

SB 1383 Measurement Demonstration: Measuring MO (Disposal) at a Transfer/Processing Facility



Measurement: Gray Container Stream

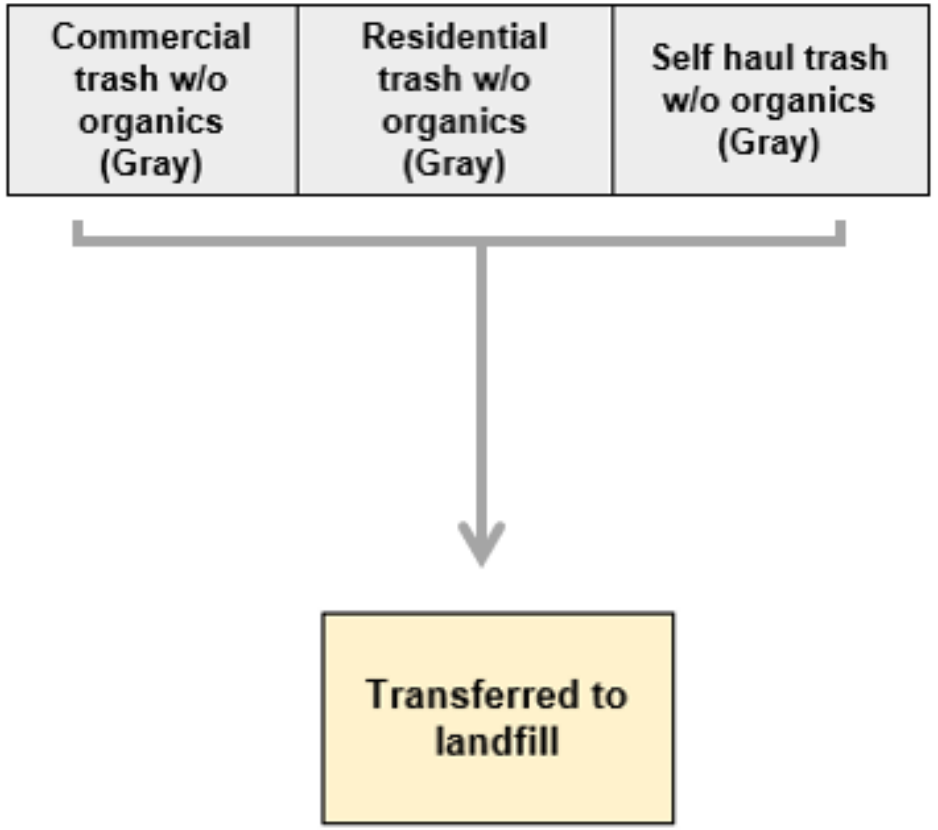
Gray Container Waste Evaluations Guidance

Does every T/P have to do a gray container waste evaluation? Only T/Ps that receive more than 500 tons of gray container waste from at least one jurisdiction annually.

When are they required to start this evaluations? Beginning July 1, 2022 (Q3 2022), the operator shall perform one waste evaluation per quarter.

Does gray container waste have to go through a T/P?

No, it can go directly to landfill, where it is not required to be sampled. (*Remember, landfills don't have sampling/measurement requirements!)*



Gray container waste evaluation on incoming waste (one sample/quarter)

Important to Remember

Which, if any, of these facilities need to perform a gray container waste evaluation?

Facility A's yearly incoming gray container waste

- Jurisdiction A 450 tons
- Jurisdiction B 475 tons

Facility B's yearly incoming gray container waste

- Jurisdiction A 550 tons
- Jurisdiction B 100 tons

Important to Remember!

Which, if any, of these facilities need to perform a gray container waste evaluation?

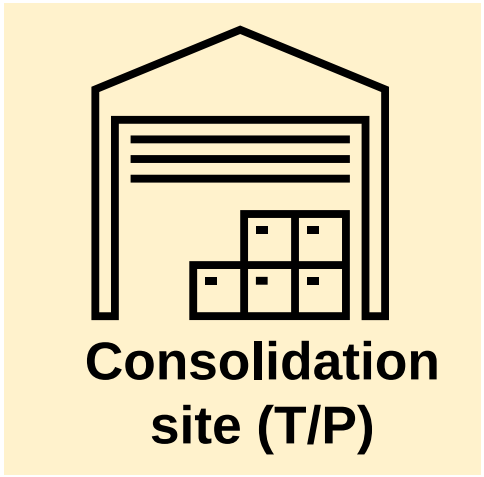
Facility A's yearly incoming gray container waste

- Jurisdiction A 450 tons
- Jurisdiction B 475 tons

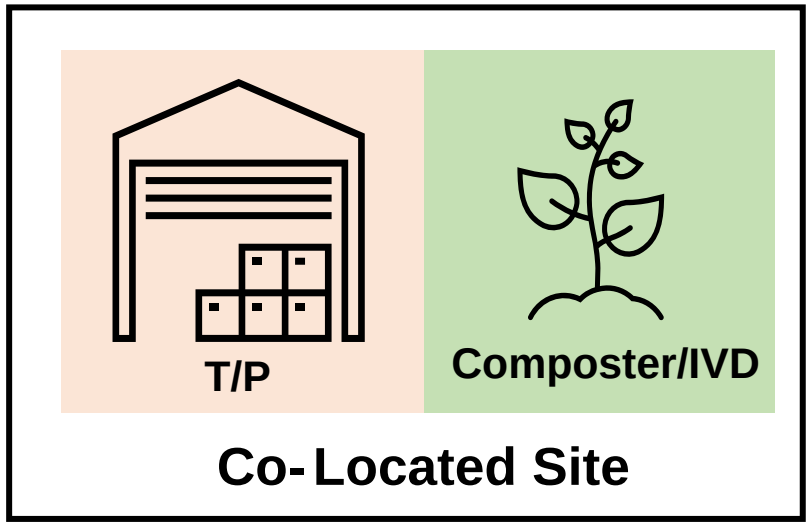
Facility B's yearly incoming gray container waste

- Jurisdiction A 550 tons
- Jurisdiction B 100 tons

Special facility scenarios



[Consolidation Site Guidance]



[Co-Located Site Guidance]

Are there any other exceptions?

Department-Issued Waivers (link)	In this case, the gray container is part of the…
Elevation Waiver allows for food and food-soiled paper to be disposed and placed in the gray container in the area subject to the waiver. In some instances, only part of the jurisdiction is subject to the waiver. (18984.12)	For a 3-container collection service = **Gray Container Collection Stream** [17402(a)(6.5)] For a 2-container or unsegregated 1-container collection service = **Mixed Waste Organic Collection Stream** [17402(a)(11.5)]
Rural exemption and low population waivers allows for some or all organic waste to be disposed and placed in the gray container, depending on the exemption or waiver. (18984.12)	**Waived from Article 3** (Not SSO, MO or gray container stream, so no measurements required)

CHECK THIS OUT! **Comparison Guide: Gray Container and Mixed Waste Organic Classification Streams**

Recordkeeping and Reporting for Transfer/Processors

Recordkeeping Requirements

- MO and SSO stream data *[if facility receives one or both]*
  - Daily incoming weights of MO and SSO.
  - Daily outgoing weights of organic material recovered from the MO and SSO streams.
  - Daily outgoing weights of materials removed from the MO and SSO streams and sent to landfill disposal
- The results of each sample conducted
- Incompatible materials calculation and result [17409.5.8(b)(7)]

Recordkeeping: Example of Daily Data

Example of four days of daily recordkeeping for green waste (SSO):

Date	Incoming Weight (tons)	Outgoing weight of organic material recovered [sent off-site] (tons)	Outgoing weight of material removed and sent to disposal (tons)
11/14	25	0	0
11/15	23	22	0
11/16	24	21	5
11/17	20	30	4

Also need to record results of each sample conducted in measurement period and incompatible materials limit (IML) calculation – covered in upcoming slides.

Reporting Requirements in RDRS

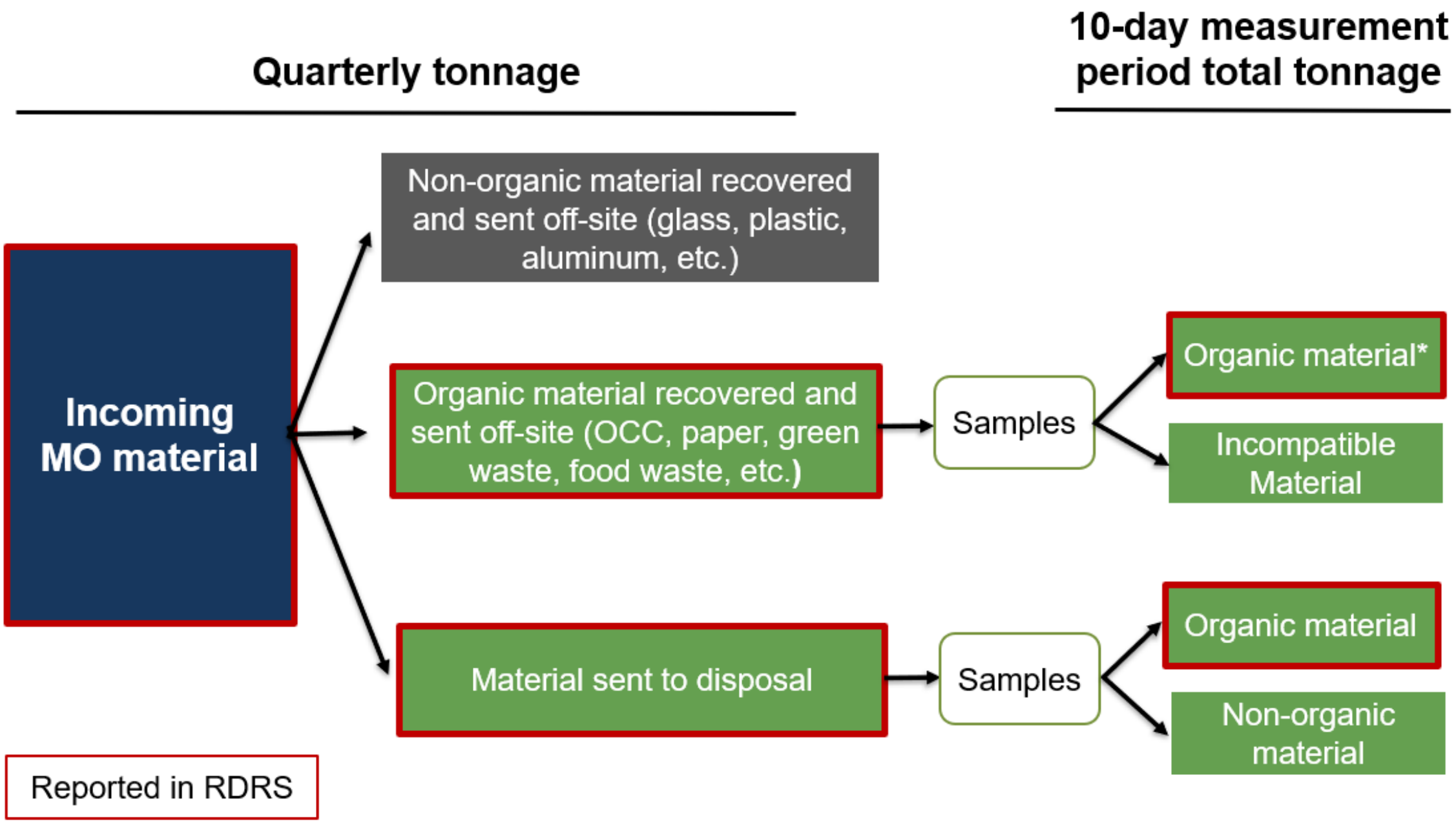
The sum for the quarter:	***What does this mean?***
Total incoming weight of MO/SSO streams	Sum of the daily records - Total MO or SSO material the facility receives that quarter
Total outgoing weight of organic material recovered [sent off-site] from MO/SSO streams	Sum of the daily records – All MO or SSO organic material sent for further processing/recovery in the quarter
Total outgoing weight of material sent to disposal from MO/SSO streams	Sum of the daily records - All MO or SSO material sent to disposal in the quarter
The sum for the 10-day measurement period:	***What does this mean?***
Outgoing weight of organic material recovered from MO/SSO streams	Total tonnage of organics in recovered organic materials sent for further processing/recovery in 10-day period, based on measurements
Outgoing weight of organic material from MO/SSO streams sent for disposal	Total tonnage organics in material headed to disposal in 10-day measurement period, based on measurements

Reporting Requirements in RDRS, cont.

The sum for the quarter:	***What does this mean?***
Total incoming weight of MO/SSO streams	Sum of the daily records - Total MO or SSO material the facility receives that quarter
Total outgoing weight of material recovered from MO/SSO streams	Sum of the daily records – All MO or SSO organic material sent for further processing/recovery in the quarter
Total outgoing weight of material sent to disposal from MO/SSO streams	Sum of the daily records - All MO or SSO material sent to disposal in the quarter
The sum for the 10-day measurement period:	***What does this mean?***
Outgoing weight of organic material recovered from MO/SSO streams	Total tonnage of organics in recovered organic materials sent for further processing/recovery in 10-day period, based on measurements
Outgoing weight of organic material from MO/SSO streams sent for disposal	Total tonnage organics in material headed to disposal in 10-day measurement period, based on measurements

How do I calculate these numbers?

Graphic of What Data is needed from MO Measurements



Transfer/Processor Detailed Scenario:
From determining streams to reporting in RDRS

Example Transfer Processor Scenario

Name: Trash City Transfer Station

Facility type: Large Volume Transfer/Processing Facility

Incoming Streams:

- Curbside blue recyclables bin - *processed*
- Curbside food and yard waste bin – *transferred*
- Curbside yard waste bin – *transferred*
- Curbside trash bin (from city with organics prohibited) – *transferred*
- Curbside trash bin (from city with organics allowed) - *processed*
- Self-hauled e-waste and batteries – *transferred*

Identify the Stream Type

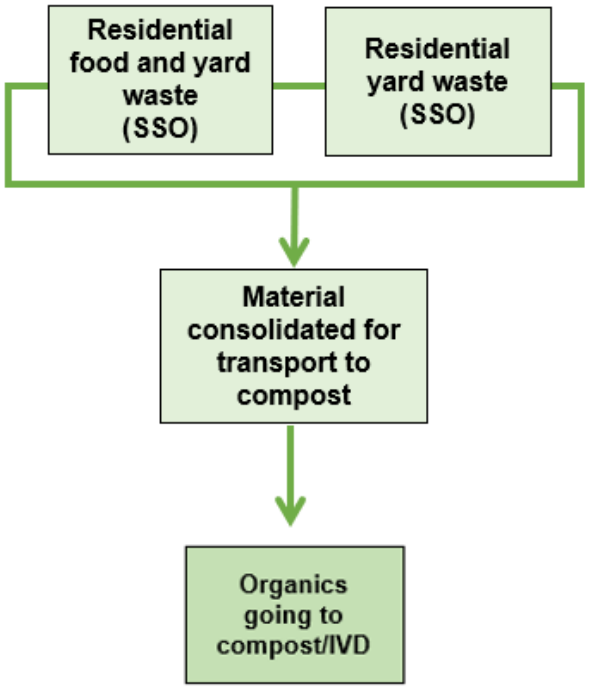
Incoming Streams:

- Curbside blue recyclables bin - **SSO**
- Curbside food and yard waste bin - **SSO**
- Curbside yard waste bin - **SSO**
- Curbside trash bin (from city with organics prohibited) - **Gray**
- Curbside trash bin (organics allowed) - **MO**
- Self-hauled e-waste and batteries – **Not subject to measurements**

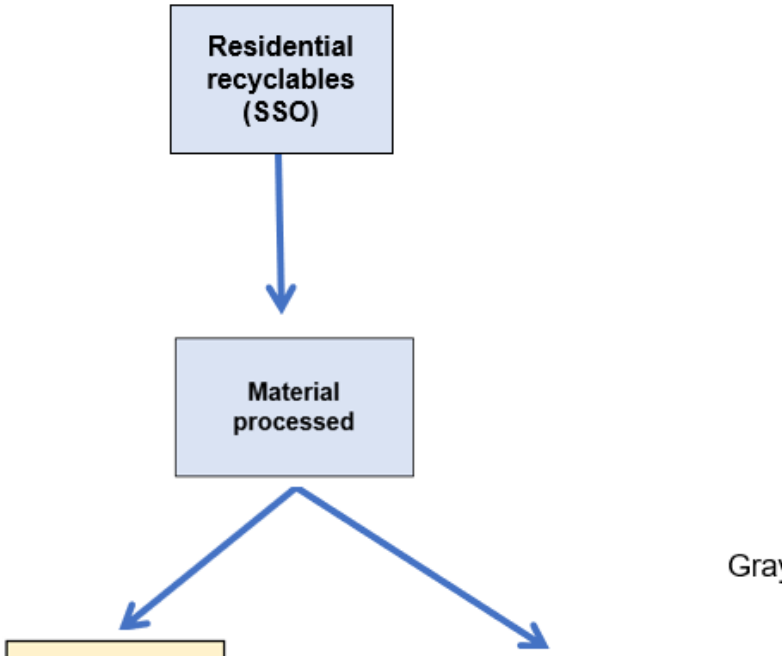
Notes:

- No material from area with low population waiver, rural exemption or high elevation waiver

Identify Measurements Required for Facility

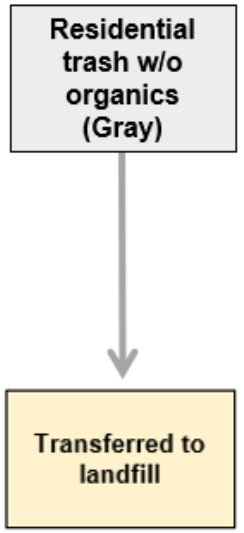


Measuring incompatibles in SSO material going to further processing, recovery or end use (10 days/quarter, 200lb samples)
Section 17409.5.4

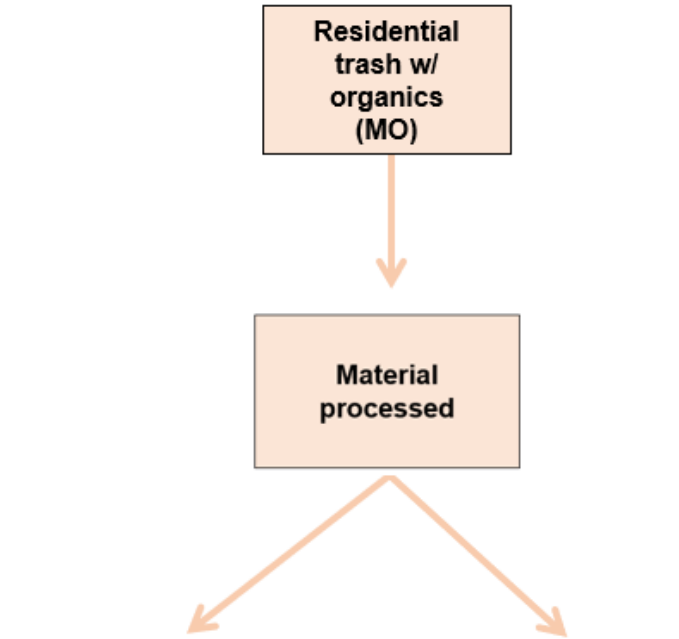


Measuring organics in SSO material destined for landfill (10 days, 200lb samples)
Section 17409.5.5

Measuring incompatibles in <u>each</u> organic material type from SSO stream going for further processing, recovery or end use (per paper type - 10 days/quarter, 200lb samples)
Section 17409.5.4



Gray container waste evaluation on incoming waste (one sample/quarter)
Section 17409.5.7



Measuring incompatibles in material going to further processing, recovery or end use (10 days/quarter, 200lb samples)
Section 17409.5.2

Measuring organics in MO material destined for landfill (10 days/quarter, 200lb samples)
Section 17409.5.3

Quarterly data to report in RDRS

1. Sum of all incoming streams

SSO Stream	Incoming tonnage for quarter (tons)
Curbside blue recyclables bin	10,400
Curbside food and yard waste bin	25,000
Curbside yard waste bin	5,500
Total (Report in RDRS)	**40,900**

MO Stream	Incoming tonnage for quarter (tons)
Curbside trash bin (org allowed)	18,750
Total (Report in RDRS)	**18,750**

Quarterly data to report in RDRS, cont.

2. Total outgoing weight of organic material recovered [sent off-site] for further processing, recovery or end use (organic material types only)

SSO: Organic material types	Tonnage for quarter (tons)
OCC	1,800
Mixed paper	1,430
White office pack	75
Yard & food waste	30,500
Total (Report in RDRS)	**33,805**

MO: Organic material types	Tonnage for quarter (tons)
Food waste	4,900
Total (Report in RDRS)	**4,900**

Quarterly data to report in RDRS

3. Total outgoing weight of material sent for disposal

SSO: Material sent to disposal	**Tonnage for quarter (tons)**
Blue bin processing material to disposal	2,095
Total (**Report in RDRS)**	**2,095**

MO: Material sent to disposal	**Tonnage for quarter (tons)**
Trash bin processing material to disposal	8,000
Total (Report in RDRS)	**8,000**

RDRS: Quarterly data to report

So RDRS measurement tab quarterly data fields should look like this:

MO	Tons
Sum of all incoming streams	18,750
Total outgoing weight of organic material recovered for further processing, recovery or end use	4,900
Total outgoing weight of all material sent for disposal	8,000

SSO	Tons
Sum of all incoming streams	40,900
Total outgoing weight of organic material recovered for further processing, recovery or end use	33,805
Total outgoing weight of all material sent for disposal	2,095

Note: In some cases, the sum of incoming streams may not match outgoing recovered and disposed if the facility is recovering inorganic materials (metal, plastic, glass, etc.).

10-day measurement data to report in RDRS

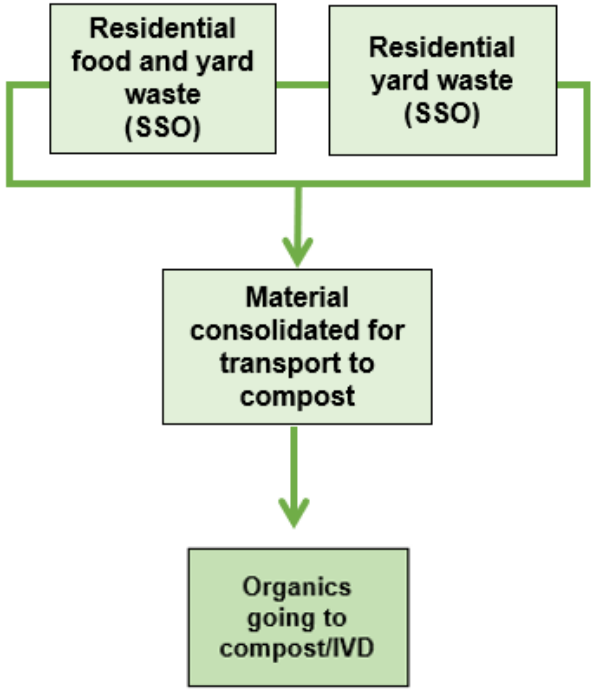
1. Total weight organic material recovered

Ex. "How much of the cardboard recovered in the 10-day period is cardboard?"

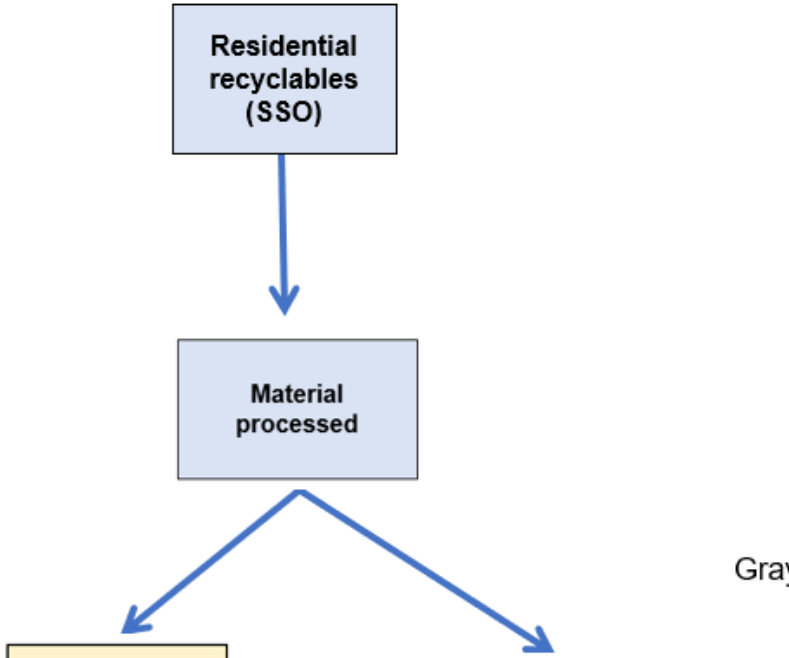
2. Total weight organic material disposed

Ex. "How much paper or other organics are in the blue bin residual over the 10-day period?"

Reminder: Facility Flows

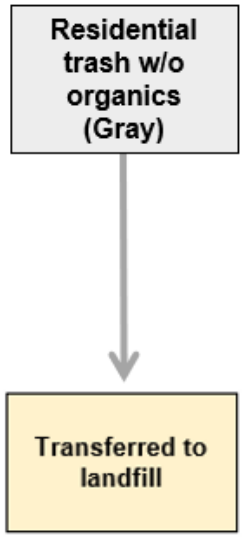


Measuring incompatibles in SSO material going to further processing, recovery or end use (10 days/quarter, 200lb samples)
Section 17409.5.4

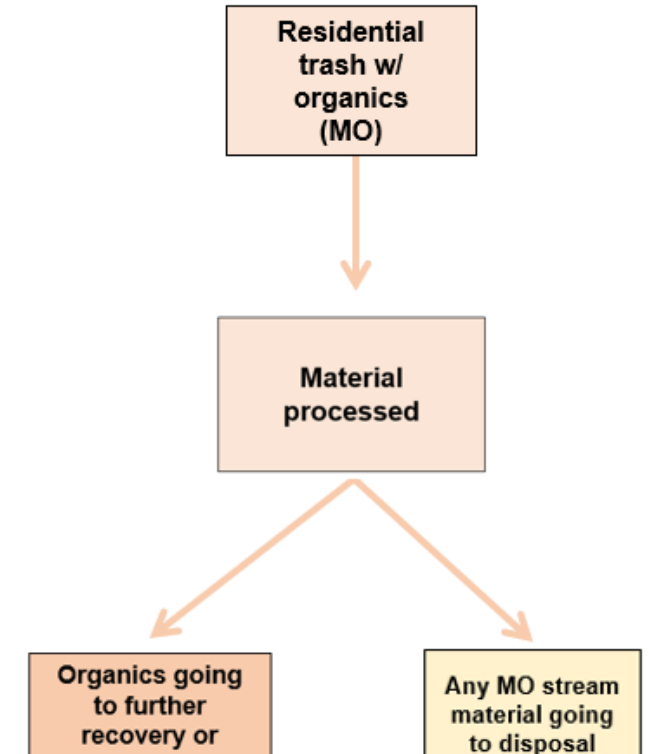


Measuring organics in SSO material destined for landfill (10 days, 200lb samples)
Section 17409.5.5

Measuring incompatibles in each organic material type from SSO stream going for further processing, recovery or end use (per paper type - 10 days/quarter, 200lb samples)
Section 17409.5.4



Gray container waste evaluation on incoming waste (one sample/quarter)
Section 17409.5.7



Measuring incompatibles in material going to further processing, recovery or end use (10 days/quarter, 200lb samples)
Section 17409.5.2

Measuring organics in MO material destined for landfill (10 days/quarter, 200lb samples)
Section 17409.5.3

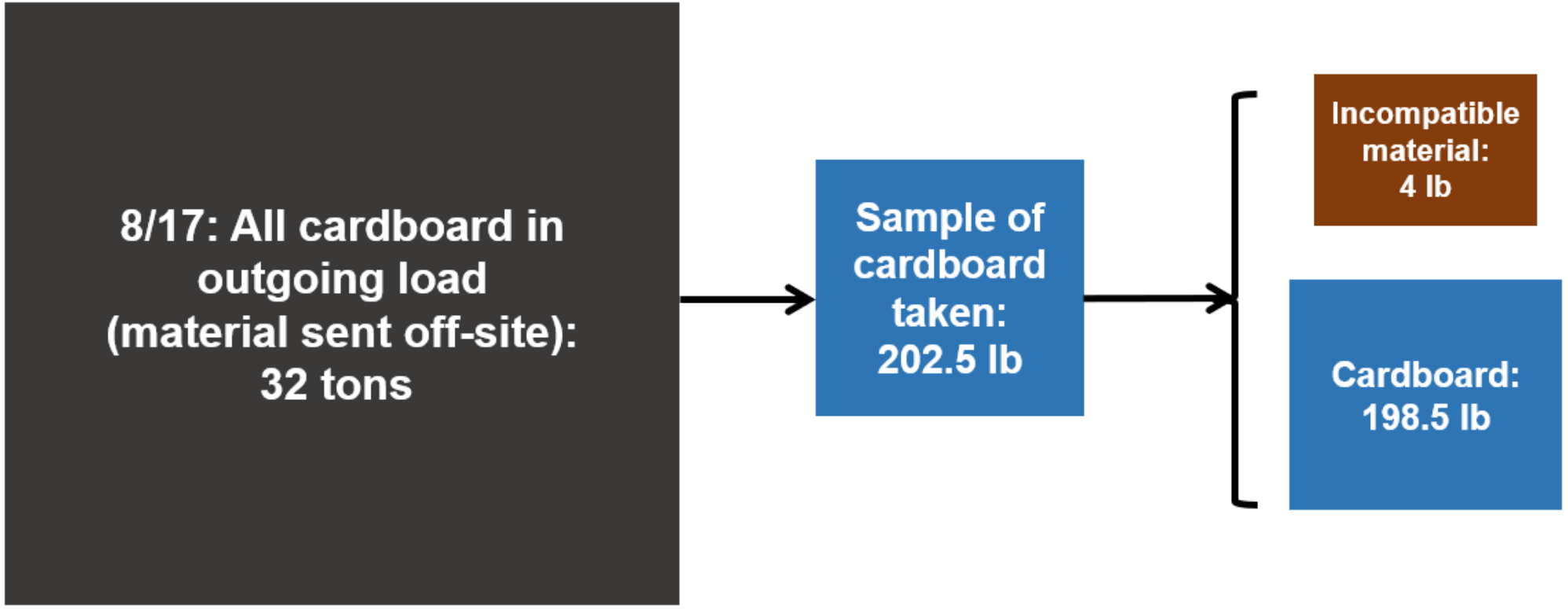
Take Samples during the Measurement Period

Outgoing Material Type	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Total Samples
SSO: Mixed Paper			X		X	N/A	N/A	X			X		4
SSO: Old Corrugated Cardboard (OCC)			X		X	N/A	N/A		X			X	4
SSO: White Office Pack						N/A	N/A			X			1
SSO: Yard & food waste to compost		X	X	X	X	N/A	N/A		X	X	X	X	8
SSO: Material to Landfill		X	X	X		N/A	N/A	X			X	X	6
MO: Organics to compost		X	X	X		N/A	N/A	X		X	X		6
MO: Material to landfill		X	X		X	N/A	N/A		X		X	X	6
Gray Container Evaluation						N/A	N/A		X				1

Take Samples during the Measurement Period 2

Outgoing Material Type	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Total Samples
SSO: Mixed Paper	N/A	N/A	X	N/A	X	N/A	N/A	X	N/A	N/A	X	N/A	4
SSO: Old Corrugated Cardboard (OCC)	N/A	N/A	X	N/A	X	N/A	N/A	N/A	X	N/A	N/A	X	4
SSO: White Office Pack	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A	N/A	1
SSO: Yard & food waste to compost	N/A	X	X	X	X	N/A	N/A	N/A	X	X	X	X	8
SSO: Material to Landfill	N/A	X	X	X	N/A	N/A	N/A	X	N/A	N/A	X	X	6
MO: Organics to compost	N/A	X	X	X	N/A	N/A	N/A	X	N/A	X	X	N/A	6
MO: Material to landfill	N/A	X	X	N/A	X	N/A	N/A	N/A	X	N/A	X	X	6
Gray Container Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A	N/A	N/A	1

Measurement Period: Sampling Cardboard



Date	Weight of material sent off-site (tons)	Sample weight (lb)	Incompatibles (lb)	Organics w/o incompatibles (lb)	Organic ratio of sample	Total weight organics recovered (tons)
8/17	32	202.5	4	198.5	0.98	31.4

Measurement Period: Sampling Cardboard 2

Date	Weight of material sent off-site (tons)	Sample weight (lb)	Incompatibles (lb)	Organics weight w/o incompatibles (lb)	Organic ratio of sample	Total weight organics recovered (tons)
8/17	32	202.5	4	198.5	0.98	31.4
8/19	39	204.3	10.2	194.1	0.95	37.1
8/23	41	201.9	8.1	193.8	0.96	39.4
8/26	44	205.6	12.3	193.3	0.94	41.4
SUM	**156**					**149.3**

Used for RDRS

Measurement Period: Sampling MO to disposal

Date	Weight of material sent off-site (tons)	Sample weight (lb)	Organic material (lb)	Non-organic material (lb)	Organic ratio	Total weight of organics disposed (tons)
8/16	150	203	42	161	0.28	42

Sampling Specifics – MO to disposal

Date	Weight of material sent off-site (tons)	Sample weight (lb)	Organic material (lb)	Non-organic material (lb)	Organic ratio of sample	Total weight organics disposed (tons)
8/16	150	203	42	161	0.28	42
8/17	132	210	42	168	0.20	26.4
8/19	154	207.5	33.2	174.3	0.16	24.6
8/23	140	200.4	62.1	138.3	0.31	43.4
8/25	129	203.3	38.6	164.7	0.19	24.5
8/26	160	205	41	164	0.20	32
SUM	**865**					**192.9**

Used for RDRS

Measurement Period Data to Report in RDRS

SSO: Material subject to measurement	Total weight organics recovered (tons)	Total weight organics disposed (tons)
SSO: Mixed Paper	118	-
SSO: OCC	149.3	-
SSO: White Office Pack	8.1	-
SSO: Yard & food waste to compost	2,950	-
SSO: Material to Landfill	-	80.4
Total to report in RDRS	**3,225.4**	**80.4**

MO: Material subject to measurement	Total weight organics recovered (tons)	Total weight organics disposed (tons)
MO: Organics to compost	485.3	-
MO: Material to landfill	-	192.9
Total to report in RDRS	**485.3**	**192.9**

RDRS: All data to report

SSO: Quarterly	Tons
Sum of all incoming streams	40,900
Total outgoing weight of organic material recovered [sent off-site] for further processing, recovery or end use	33,805
Total outgoing weight of all material sent for disposal	2,095
SSO: 10-Day Measurement	**Tons**
Total weight organics recovered	3,225.4
Total weight organics disposed	80.4

MO: Quarterly	Tons
Sum of all incoming streams	18,750
Total outgoing weight of organic material recovered for further processing, recovery or end use	4,900
Total outgoing weight of all material sent for disposal	8,000
MO: 10-day Measurement	**Tons**
Total weight organics recovered	485.3
Total weight organics disposed	192.9

Reminder: Sum of incoming streams doesn't equal outgoing recovered and disposed because facility is also recovering inorganic materials (metal, plastic, glass, etc.).

Calculating Annual Facility Recovery Efficiency

CalRecycle will calculate a facility's MO recovery efficiency to determine if they meet the definition of a high diversion organic waste processing facility [for facilities receiving MO streams].

Equation uses data from 10-day measurement period from last four quarters

$$\frac{\text{Sum of MO recovered organics (Q1 +Q2 + Q3 + Q4)}}{\text{Sum of MO recovered organics (Q1:Q4) + Sum of disposed organics (Q1:Q4)}}$$

Quarter	Recovered Organics Tons	Disposed Organics Tons	Quarterly Rate
Q1 2022	510.5	240.2	68%
Q2 2022	328	133.9	71%
Q3 2022	485.3	192.9	72%
Q4 2022	520	120.7	81.2%

$$\frac{(510.5 + 328 + 485.3 + 520)}{(510.5 + 328 + 485.3 + 520) + (240.2 + 133.9 + 192.9 + 120.7)} = \mathbf{72.8\%}$$

Incompatible Materials Limit in Recovered Organic Waste

Incompatible Materials Limit in Recovered Organic Waste

Intent: To determine the “cleanliness” of the organic waste separated from the SSO stream and MO stream, ensures accepting facility is receiving non-contaminated product.

No more than 20% incompatibles by 2022 and 10% incompatibles by 2024.

If above this threshold, facility can only send organic material to a:

1. T/P that meets incompatible limit, or
2. Composter or in-vessel digester that has less than 20% organics in material sent to disposal in 2022 and less than 10% in 2024, or
3. Recycling center.

Incompatible Materials Limit in Recovered Organic Waste, cont.

$$\frac{\text{Incompatibles Weight (SSO + MO)}}{\text{Outgoing Weight of Organic Material Types Sent Offsite for Recovery (SSO + MO)}} \times 100 = \text{Incompatible Materials Limit}$$

Recovered Material Types
SSO: Mixed Paper
SSO: OCC
SSO: White Paper
SSO: Yard & food waste to compost
MO: Organics to compost

IML: Cardboard & Incompatibles

Date	Weight of material sent off-site (tons)	Sample weight (lb)	Incompatibles (lb)	Ratio of incompatible material	Incompatibles in load (tons)
8/17	32	202.5	4	0.02	0.64
8/19	39	204.3	10.2	0.05	1.95.
8/23	41	201.9	8.1	0.04	1.64
8/26	44	205.6	12.3	0.06	2.63
SUM	**156**	**--**	**--**	**--**	**6.86**

Need for IML

Need for IML

IML: Totals for All SSO and MO Types

Recovered Material Types	Weight of material sent off-site (tons)	Total Incompatibles (tons)
SSO: Mixed Paper	132	14
SSO: OCC	156	6.86
SSO: White Paper	8.12	0.01
SSO: Yard & food waste to compost	3,075	125
MO: Organics to compost	550.3	65
SUM	**3,921.42**	**210.87**

IML: Final Calculation

$$\frac{\text{Incompatibles Weight (SSO + MO)}}{\text{Outgoing Weight of Organic Material Types Sent-Offsite for Recovery (SSO + MO)}} \times 100 = \text{Incompatible Materials Limit}$$

$$\frac{210.87}{3{,}921.42} \times 100 = \mathbf{5.38\%}$$

IML: What does it mean?

5.38% is below the 20% incompatible limit threshold.

So, the organic material sent-offsite from this facility for further recovery, processing or end use can be sent anywhere.

Determining Measurement Requirements for a Composters/In-Vessel Digestor

Organic Processing Facilities Required to Measure

Includes: Chip & Grind operations (unless chip & grind is a permitted T/P).

Excludes: IVDs that are not permitted solid waste activities, like IVDs at POTWs [17896.6]

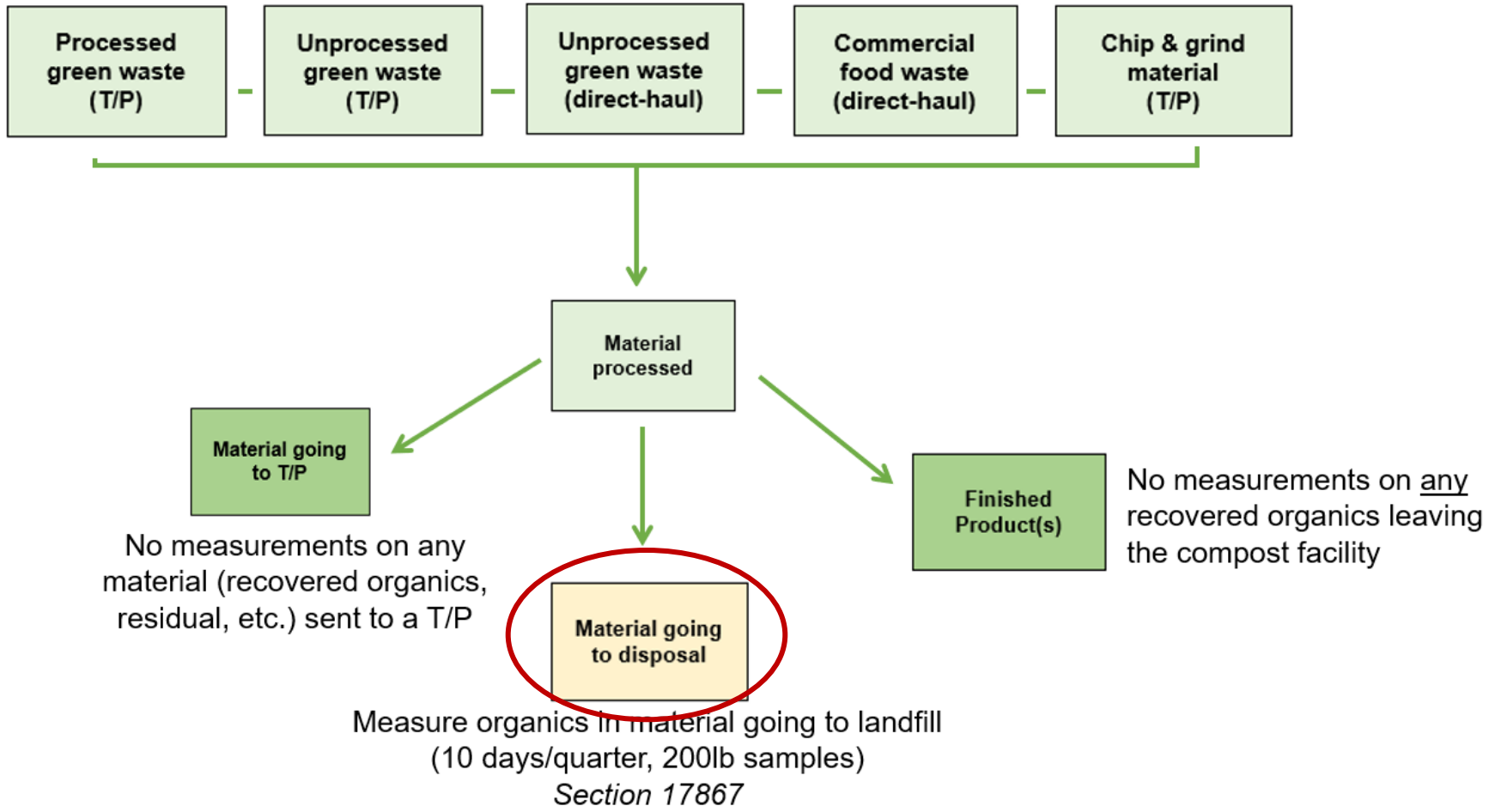
How to determine what's required at composters/IVDs

1. Does the facility send material to disposal?

This is the only stream that must be measured. This includes organic material sent to the landfill to be used as ADC/AIC.

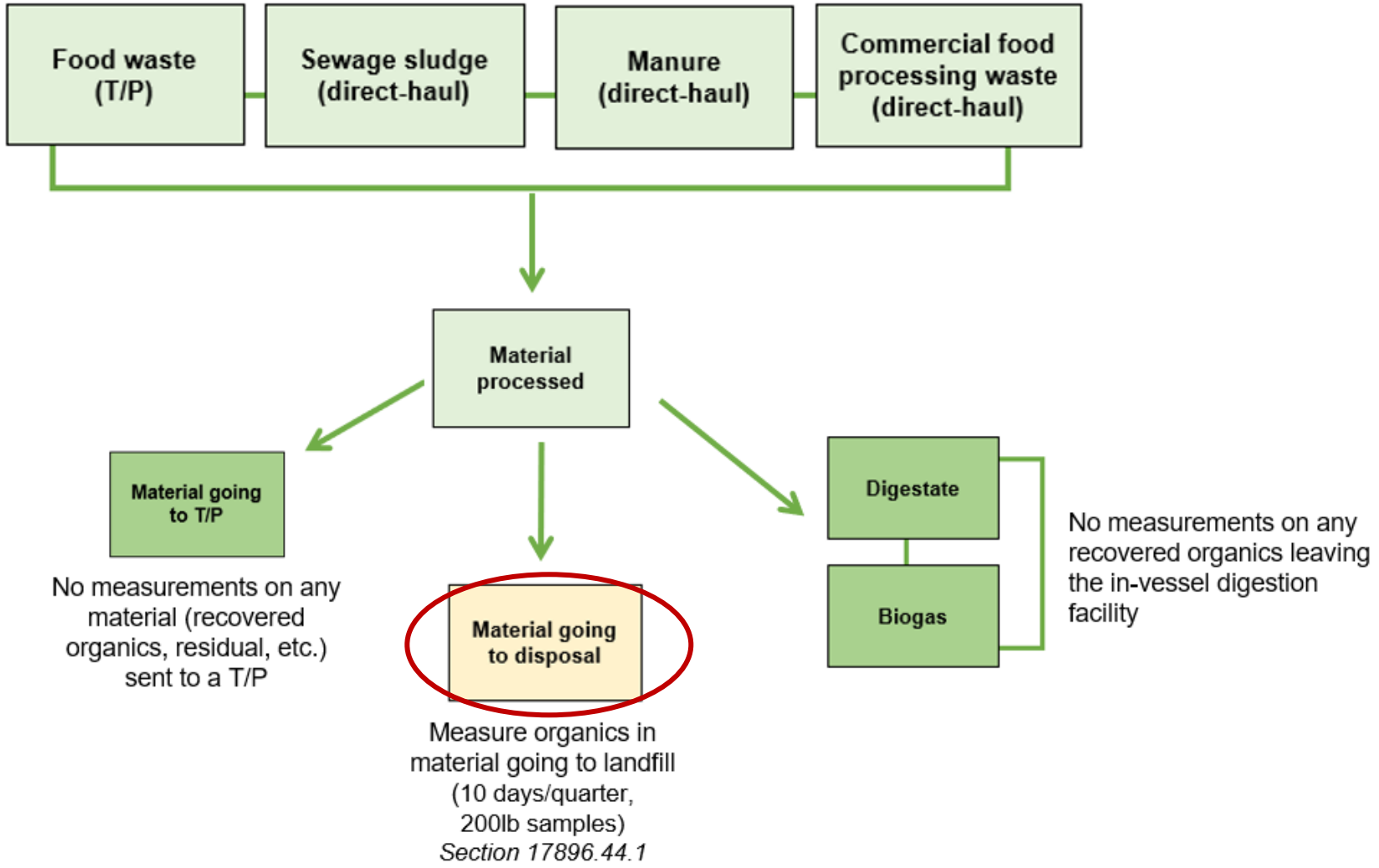
Composter Measurement Requirements

Composting Operating Standards, 17867(a)(16)(F)
Organic waste that are textile carpet, hazardous wood was non-compostable paper, hum or pet waste, and material subject to a quarantine on movement issued by a count agricultural commissioner, is required to be measured as organic waste. **Measuremer Demonstration Video**



IVD Measurement Requirements

IVD Operating Standards, 17896.44.1(e): Organic waste that are textiles, carpet, hazardous wood waste, non-compostable paper, human or pet waste, and material subject to a quarantine on movement issued by a county agricultural commissioner, is not required to be measured as organic waste.



Recordkeeping and Reporting for Composters/In-Vessel Digestors

Recordkeeping Requirements: Compost & IVD

Composter (Section 17869)	In-Vessel Digestor (Section 17896.45)
Daily incoming weights by material type	Daily incoming weights of material
Daily outgoing weights of material sent to disposal	Outgoing weights or volumes of material sent to disposal
Daily outgoing weights of compost	Daily outgoing weights or volumes of organic waste recovered and produced
Daily outgoing weights of chipper and ground material produced	Daily outgoing weights or volumes of salvaged materials.
Weight of compostable material sent offsite to any destination(s) other than an authorized permitted solid waste facility or operation.	Weight of compostable material sent offsite to any destination(s) other than an authorized permitted solid waste facility or operation.
Quarterly percentage of organic waste contained in materials sent to landfill disposal. [Calculate per 17867]	Quarterly percentage of organic waste contained in material sent to landfill disposal. [Calculate per 17896.44.1]

Reporting Requirements, cont.

- [x] The percentage of organic waste contained in materials sent to landfill disposal.

$$\frac{\text{Sum of organics in material sent to landfill in 10-day period}}{\text{Sum of all material sent to disposal in 10-day period}} \times 100 = \textbf{Percentage of Organic Waste sent to Disposal}$$

Measurement Period: Sampling Disposal Stream

Date	Weight of material sent off-site (tons)	Sample weight (lb)	Organic material (lb)	Non-organic material (lb)	Ratio of organic waste
8/17	3	208.3	152	56.3	0.73

RDRS: Calculating Organic Waste Sent to Disposal

Date	Weight of material sent to disposal (tons)	Ratio of organic waste	Total weight organics sent to landfill (tons)
8/17	3	0.73	2.19
8/19	2.3	0.82	1.89
8/23	4	0.79	3.16
8/26	1.5	0.91	1.36
SUM	**10.8**		**8.6**

$$\frac{8.6}{10.8} \times 100 = \boxed{79.6\%}$$

← **Reported in RDRS - "Quarterly % Organic Waste Sent to Disposal"**