



Guidelines for Calculating Emissions from Greenwaste Composting and Co-Composting Operations

Revised February 2023

DESCRIPTION:

Composting refers to the active phase biodegradation and subsequent curing phase of organic waste materials. Greenwaste composting is microbiological decomposition of greenwaste by itself, or in combination with foodwaste, or up to 20 percent manure, per pile volume basis. Co-Composting is composting of biosolids and/or manure with a bulking agent. Composting of greenwaste combined with manure greater than 20 percent, per pile volume basis, is considered as co-composting. Specific to greenwaste composting and co-composting, Rule 301 requires that the total weight of emissions of organic gases (VOC) and ammonia (NH₃) be annually reported, even those which continue to passively emit air contaminants after they are processed by permitted or unpermitted equipment or operations.

1. EMISSION CALCULATION PROCEDURES

- a) Facilities can estimate their VOC and NH₃ emissions using equation (1) when the emissions are not being controlled or equation (2) when the emissions are being controlled prior to release to the atmosphere.

$$\text{EMISSION} = \text{Throughput} * \text{Uncontrolled Emission Factor} \quad (1)$$

$$\text{EMISSION} = \text{Throughput} * \text{Controlled Emission Factor} \quad (2)$$

Where,

EMISSION: VOC or NH₃ emissions expressed in pounds per year (lb/yr)

Throughput: Mass of foodwaste, manure, biosolids, and greenwaste in tons per year as received by a facility and processed through composting excluding recycled materials.

Uncontrolled Emission Factor (EF_u): South Coast AQMD default factors that are taken from the Rule 1133.2 and Rule 1133.3 staff reports and are available to estimate the emissions from co-composting and greenwaste composting operations.

Controlled Emission Factors (EF_c): These are the factors determined based on the types of emissions control exist at the facility such as best management practices or additional South Coast AQMD approved control system as described below.

If controlled emission factors are used to estimate emissions, you must provide the District with documentation that demonstrates compliance.

- i. **Best Management Practices:** The best management practices are defined as when greenwaste composting piles are covered with at least six inches of finished compost within 24 hours of initial pile formation, and not turned for the first seven days of active phase composting, and for the first fifteen days of initial pile formation, and

within six hours before turning, the top half of the pile is kept wet to a depth of at least three inches.

- ii. **Add-on Control:** South Coast AQMD approved emission control system is used for greenwaste composting and co-composting piles (i.e., Thermal Oxidizer (T/O), Bio-filtration, etc.)

b) Uncontrolled and Controlled Emission Factors for Greenwaste Composting & Co-Composting Operations

The uncontrolled emission factors for VOC & NH₃ are provided in Table 1 and the controlled emission factors are listed under Table 2a for housekeeping practices and Table 2b for add-on control.

Table 1: Uncontrolled Emission Factors

Operation	VOC (lbs/ton of throughput)	NH ₃ (lbs/ton of throughput)
Greenwaste Composting	4.67	0.66
Co-Composting	1.78	2.93

Table 2a: Controlled Emission Factors (Best Management Practices)

Operation	VOC (lbs/ton of throughput)	NH ₃ (lbs/ton of throughput)
Greenwaste Composting	2.97*	0.57**

*This value assumes 40% control applied to the active phase only

**This value assumes 20% control applied to the active phase only

Table 2b: Controlled Emission Factors (Add-On Control)

Operation	VOC (lbs/ton of throughput)	NH ₃ (lbs/ton of throughput)
Greenwaste Composting*	$4.25 \times (1 - CE_{A,VOC}) + 0.42 \times (1 - CE_{C,VOC})$	$0.46 \times (1 - CE_{A,NH3}) + 0.20 \times (1 - CE_{C,NH3})$
Co-Composting	$1.78 \times (1 - CE_{VOC})$	$2.93 \times (1 - CE_{NH3})$

Where, CE_{VOC} or CE_{NH3} is a control efficiency of the Add-on control and expressed as a decimal fraction.

*The subscript A for greenwaste composting refers to the control efficiency during the active phase, and the subscript C refers to the control efficiency (if any) during the curing phase.

c) VOC and NH₃ Emissions Calculations

To estimate the total VOC and NH₃ emissions from greenwaste composting or co-composting operations,

1. Take the total weight of foodwaste, manure, biosolids, and greenwaste in tons per year as received by a facility and processed through composting excluding recycled materials.
 2. Take the uncontrolled emission factor from Table 1 when there is no control at the facility or controlled emission factors from Tables 2a or 2b when best management practices or South Coast AQMD approved control system are used, based on the type of emissions (i.e., VOC, NH₃).
 3. Enter the values obtained in steps 1 and 2 in equations (1) or (2), whichever applicable, to estimate the VOC & NH₃ emissions for greenwaste composting and/or co-composting operations.
- d) If a source test was conducted, then emission factors derived from South Coast-approved source test can be used to estimate VOC & NH₃ emissions.

2. EXAMPLES:

The following examples show how data are entered into the AER Reporting Tool and emissions are reported. A facility reports emissions from three distinct greenwaste composting and co-composting operations as follows:

Operation 1: Co-composted 8,000 tons of materials with no add-on control. The VOC and NH₃ emissions are estimated as shown in Screenshots 1 - 7 below with emission factors from Row 2 of Table 1.

Operation 2: Composted 10,000 tons of combined greenwaste composting materials with good housekeeping practices. The VOC and NH₃ emissions are estimated as shown in Screenshots 8 - 13 below with emission factors from Table 2a.

Operation 3: Co-composted 18,000 tons of materials with add-on control system: thermal oxidizer (T/O) controlling VOC at 99.2% efficient and bio-filter controlling NH₃ at 75% efficient. The VOC and NH₃ emissions are estimated as shown in Screenshots 14 - 20 below with emission factors from row 2 of Table 2b.

Screenshot #21 shows emissions from composting and co-composting processes are added.

Operation 1: Screenshot #1: Add Emission Source for Uncontrolled Co-Composting Operation

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Edit Emission Source

Instruction: Add new emissions sources using information found on permits, manufacturers specifications, or identifying placards. Select the Operating ES Status that best reflect the device's operation for this reporting period. All areas with a Red Asterisk (*) must be addressed. Note: Some devices have been pre-populated, verify that the information is correct

Permitted	<input checked="" type="checkbox"/>
Uploaded	<input type="checkbox"/>
A/N	<input type="text"/>
Permit No	<input type="text"/>
Permit Device ID	<input type="text"/>
AER Device ID	will be assigned upon saving
ES Name	co-composting operation *
Operating ES Status	Normal Operation *
Comment	<input type="text"/>
Emission Source Category	Other Processes Categorize Emission Source *
Design Capacity	0 <input type="text"/>

Save or **Save and return to List of Emission Sources** or

Save and proceed to Process Reporting or **Cancel**

Optional: **Save and Mark as Completed** Click here to [delete](#) this emission source and associated data.

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Operation 1: Screenshot #2: Select Process ID P1

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Form data is successfully saved.

Build Reporting Structure

Emission Sources (ES) Classification

Summary: This section contains facility permit profile. Please make sure that every device has a specified Emission Source (ES). New emission sources can also be added.

A/N	Permit No	Permit Device ID	Permit Device Description	AER Device ID	ES Name	ES Group Name	Source Category	Emissions?	Equipment	ES Status
Open					ES25	co-composting operation	Other Processes		Y	Other process equipment

Process ID	Source Group	Process/Material/Fuel Name	Status	Operation Type
Open	P1	Other Process Emissions	Work in progress	routine

Add Process/Material/Fuel **i**

OK

Search Emission Sources

Search: **Print Preview**

Emission Source (ES)	Emissions	A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	ES Group Name	Source Category	Has Emissions	Equipment	ES Status
Profile	Open						ES25	co-composting operation	Other Processes	Y	Other process equipment	Work in progress
Profile	Open						ES24	Boiler	External Combustion	Y	Boiler <10 MMBTU/HR	Work in progress
Profile	Open	111119					ES23	Valves - Light Liquid	Fugitive Components	Y	Fugitive	Work in progress
Profile	Open	111118					ES22	Microturbine	Internal Combustion	Y	Micro Turbine	Work in progress

Operation 1: Screenshot #3: Assign Activity Code and Rule Number

AER Home Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components
Other Processes
Process Upset

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Back to Emission Source Process Reference

Edit Emission Process - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES25			P1	1133.2	

AER Device ID: ES25 AER Device Name: co-composting operation

PERMITTED Permit Device ID:

Process ID: P1 Process Name:

Process Comment:

Activity Code: Sector: Miscellaneous Operations and Services

Industry: Others - Not Classified

Operation: Operations & Maintenance

Process: Annual Emissions

Rule #: 1133.2 [Add Rule](#)

[Save](#) [Cancel](#)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Ammonia	7664417	2.93000000e+0	lbs / tons	No	AQMD default		2.34400000e+4

[Add New](#)

Operation 1: Screenshot #4: Input Throughput

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components
Other Processes
Process Upset

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Back to Emission Source Process Reference

Step 1: Process [Optional: Mark as Completed](#)

Edit Throughput Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES25			P1	1133.2		

Annual Throughput: 8,000.00000000 [*](#) tons [*](#)

Throughput Type: Input [*](#)

Throughput Comment: contains >20% manure

[Save](#) [Cancel](#)

[Add New](#)

Step 4: Toxic (TAC/ODC) Emissions (lbs)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
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[Add New](#)

[Back to Emission Source Process Reference](#)

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Operation 1: Screenshot #5: Enter VOC Information

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Em

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components

Other Processes
Process Upset
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause**

Open Criteria Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES25			P1	1133.2		

Annual Throughput
8,000.00000000 tons

Pollutant: VOC *

Emission Factor (EF): 1.78000000e+0 * lbs/tons

☐ Controlled EF value
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.00000000

Emission Factor Comment: uncontrolled co-composting VOC emissions

If not using **AQMD default** emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information. Processes without this information are subject to audit.

Emission Factor Data Source: AQMD default *

Emissions: 1.42400000e+4 lbs

Save Cancel

Add New

Back to Emission Source Process Reference

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Operation1: Screenshot #6: Enter Ammonia Information

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Em

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components

Other Processes
Process Upset
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause**

Open Toxic (TAC/ODC) Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES25			P1	1133.2		

Annual Throughput
8,000.00000000 tons

TAC/ODC Toxic Pollutants / Ozone Depleting Compounds

Pollutant: 32 - Ammonia *

TAC Group: 32 - Ammonia

CAS # (Pollutant): 7664417 - Ammonia

Emission Factor (EF): 2.93000000e+0 * lbs/tons

☐ Controlled EF value
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.00000000

Emission Factor Comment: co-composting uncontrolled Ammonia emissions

If not using **AQMD default** emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information. Processes without this information are subject to audit.

Emission Factor Data Source: AQMD default *

Emissions: 2.34400000e+4 lbs

Save Cancel

Back to Emission Source Process Reference

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Operation1: Screenshot #7: Data Entry Complete

AER Home
Browse Facilities
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Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components
Other Processes
Process Upset

[Back to Emission Source Process Reference](#)

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Step 1: Process
Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
Open	ES25			P1	1133.2		

Click here to [delete](#) this process.

Step 2: Throughput

	Annual Throughput
Open	8,000.00000000 tons

Step 3: Criteria Emissions (lbs)
Use [Default Emission Factors](#) if available.

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	VOC	1.78000000e+0	lbs / tons	No	AQMD default		1.42400000e+4

Add New

Step 4: Toxic (TAC/ODC) Emissions (lbs)

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Ammonia	7664417	2.93000000e+0	lbs / tons	No	AQMD default		2.34400000e+4

Add New

[Back to Emission Source Process Reference](#)

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Operation 2: Screenshot #8: Add Emission Source for Composting with Best Management Practices

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Edit Emission Source

Instruction: Add new emissions sources using information found on permits, manufacturers specifications, or identifying placards. Select the Operating ES Status that best reflect the device's operation for this reporting period. All areas with a Red Asterisk (*) must be addressed. Note: Some devices have been pre-populated, verify that the information is correct

Permitted ☒
 Uploaded ☐
 A/N
 Permit No
 Permit Device ID
 AER Device ID will be assigned upon saving
 ES Name greenwaste composting *
 Operating ES Status Normal Operation *
 Comment
 Emission Source Category Other Processes
 Categorize Emission Source *
 Design Capacity 0

Save or Save and return to List of Emission Sources or
 Save and proceed to Process Reporting or Cancel
 Optional: Save and Mark as Completed Click here to [delete](#) this emission source and associated data.

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Operation 2: Screenshot #9: Assign Activity Code and Rule Number

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

[Back to Emission Source Process Reference](#)

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be

Edit Emission Process - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES26			P1	1133.3	

AER Device ID ES26 AER Device Name greenwaste composting
 PERMITTED Permit Device ID
 Process ID P1 Process Name
 Process Comment
 Activity Code *
 Sector: Miscellaneous Operations and Services
 Industry: Others - Not Classified
 Operation: Operations & Maintenance
 Process: Annual Emissions
 Rule # 1133.3 * [Add Rule](#)

Save Cancel

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Ammonia	7664417	5.70000000e-1	lbs / tons	Yes	AQMD default	Applied to EF 5.70000000e+3

[Add New](#)

Operation 2: Screenshot #10: Input Throughput

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914 [Back to Emission Source Process Reference](#)

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions

Combustion
External Combustion
Internal Combustion
Use of organic materials
Spray Coating Booth
Other Use
Storage Tanks
Fugitive Combustion
Other Processes

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Edit Throughput Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES26			P1	1133.3		

Annual Throughput

Annual Throughput: 10,000.00000000 * tons

Throughput Type: Input *

Throughput Comment: contains <20% manure

Save Cancel

Step 3: Criteria Emissions (lbs) Use [Default Emission Factors](#) if available.

Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Add New						

Step 4: Toxic (TAC/ODC) Emissions (lbs)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Add New							

[Back to Emission Source Process Reference](#)

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Operation 2: Screenshot #11: Input VOC Information

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914 [Back to Emission Source Process Reference](#)

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions

Combustion
External Combustion
Internal Combustion
Use of organic materials
Spray Coating Booth
Other Use
Storage Tanks
Fugitive Combustion
Other Processes

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Open Criteria Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES26			P1	1133.3		

Annual Throughput

Annual Throughput: 10,000.00000000 tons

Pollutant: VOC *

Emission Factor (EF): 2.97000000e+0 * lbs/tons

☒ Controlled EF value
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency:

Emission Factor Comment: Greenwaste composting VOC emissions using best management practices.
If not using AQMD default emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information.
Processes without this information are subject to audit.

Emission Factor Data Source: AQMD default *

Emissions: 2.97000000e+4 lbs

Save Cancel

TAC/ODC Group CAS # EF Unit Controlled EF EF Data Source Overall CE Emissions

[Add New](#)

[Back to Emission Source Process Reference](#)

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Operation 2: Screenshot #12: Input Ammonia Information

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Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914 [Back to Emission Source Process Reference](#)

1. Facility Info
2. Status Update
3. Combustion
4. Emission Source
5. Report Print

Combustion
External Combustion
Internal Combustion
Use of organic materials
Spray Coating Booth
Other Uses
Storage Tanks
Fugitive Combustion
Other Processes
Process Upsets

6. Perform Data Entry
7. Review Summary
8. Print Facility Report
9. Report Submission

Open Toxic (TAC/ODC) Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES26			P1	1133.3		
Annual Throughput						
10,000.00000000 tons						
TAC/ODC Toxic Pollutants / Ozone Depleting Compounds						
Pollutant		32 - Ammonia				
TAC Group		32 - Ammonia				
CAS # (Pollutant)		7664417 - Ammonia				
Emission Factor (EF)		5.70000000e-1 * lbs/tons				
		<input checked="" type="checkbox"/> Controlled EF value (mark checkbox if EF listed represents EF determined after control)				
Overall Control Efficiency						
Emission Factor Comment		<p>Greenwaste Ammonia emissions using best management practices.</p> <p>If not using AQMD default emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information. Processes without this information are subject to audit.</p>				
Emission Factor Data Source		AQMD default				
Emissions		5.70000000e+3 lbs				

[Save](#) [Cancel](#)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data source	Overall CE	Emissions
Add New							

[Back to Emission Source Process Reference](#)

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Operation 2: Screenshot #13: Data Entry Complete

AER Home
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Access Facility
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Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components
Other Processes
Process Upset
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

[Back to Emission Source Process Reference](#)

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Step 1: Process
Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
Open	ES26			P1	1133.3		

Click here to [delete](#) this process.

Step 2: Throughput

	Annual Throughput
Open	10,000.00000000 tons

Step 3: Criteria Emissions (lbs)
Use [Default Emission Factors](#) if available.

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	VOC	2.97000000e+0	lbs / tons	Yes	AQMD default	Applied to EF	2.97000000e+4

[Add New](#)

Step 4: Toxic (TAC/ODC) Emissions (lbs)

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Ammonia	7664417	5.70000000e-1	lbs / tons	Yes	AQMD default	Applied to EF	5.70000000e-3

[Add New](#)

[Back to Emission Source Process Reference](#)

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Operation 3: Screenshot#14: Add Emission Source for Co-Composting With Add-on Control

AER Home
Browse Facilities
Access Facility
START HERE

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Edit Emission Source

Instruction: Add new emissions sources using information found on permits, manufacturers specifications, or identifying placards. Select the Operating ES Status that best reflect the device's operation for this reporting period. All areas with a Red Asterisk (*) must be addressed. Note: Some devices have been pre-populated, verify that the information is correct

Permitted	<input checked="" type="checkbox"/>
Uploaded	<input type="checkbox"/>
A/N	<input type="text"/>
Permit No	<input type="text"/>
Permit Device ID	<input type="text"/>
AER Device ID	will be assigned upon saving
ES Name	co-composting controlled *
Operating ES Status	Normal Operation *
Comment	<input type="text"/>
Emission Source Category	Other Processes Categorize Emission Source *
Design Capacity	0 <input type="text"/>

Save or Save and return to List of Emission Sources or

Save and proceed to Process Reporting or Cancel

Optional: Save and Mark as Completed Click here to [delete](#) this emission source and associated data.

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Operation 3: Screenshot #15: Select Process ID P1

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

Form data is successfully saved.

Build Reporting Structure

Emission Sources (ES) Classification

Summary: This section contains facility permit profile. Please make sure that every

Process References

A/N	Permit No	Permit Device ID	Permit Device Description	AER Device ID	ES Name	ES Group Name	Source Category	Emissions?	Equipment	ES Status
Open					ES27	co-composting controlled	Other Processes	Y	Y	Other process equipment

Process ID: [Open](#) P1 Source Group: Other Process Emissions Process/Material/Fuel Name: Status: Work in progress Operation Type: routine

[Add Process/Material/Fuel](#) [i](#)

[OK](#)

A/N: Permit NO: AER Device ID: Permit Device ID: Search Emission Sources

Search: [Print Preview](#)

Emission Source (ES)	Emissions	A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	ES Group Name	Source Category	Has Emissions	Equipment	ES Status
Profile	Open					ES27	co-composting controlled	Other Processes	Y	Y	Other process equipment	Work in progress
Profile	Open					ES28	greenwaste composting	Other Processes	Y	Y	Other process equipment	Work in progress

Operation 3: Screenshot #16: Assign Activity Code and Rule Number

AER Home Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Combustion
External Combustion
Internal Combustion
Use of organics
Spray Coating/Spray Booth
Other Use of Organics
Storage Tanks
Fugitive Components
Other Processes
Process Upset
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

[Back to Emission Source Process Reference](#)

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information

Edit Emission Process - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES27			P1	1133.2	

AER Device ID: ES27 AER Device Name: co-composting controlled

PERMITTED Permit Device ID: Process ID: P1 Process Name: Process Comment: Activity Code * Sector: Miscellaneous Operations and Services Industry: Others - Not Classified Operation: Operations & Maintenance Process: Annual Emissions Rule #: 1133.2 [Add Rule](#)

[Save](#) [Cancel](#)

[Add New](#)

Step 4: Toxic (TAC/ODC) Emissions (lbs)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Ammonia	7664417	2.93000000e+0	lbs / tons	No	Source Test	1.31850000e+4

[Add New](#)

Operation 3: Screenshot #17: Input Throughput

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions

Combustion
External Combustion
Internal Combustion
Use of organic materials
Spray Coating Booth
Other Use
Storage Tanks
Fugitive Combustion
Other Processes

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Edit Throughput Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES27			P1	1133.2		

Annual Throughput

Annual Throughput: 18,000.00000000 tons

Throughput Type: Input

Throughput Comment: controlled by TO with 99.2% efficiency

Save Cancel

Step 3: Criteria Emissions (lbs) Use Default Emission Factors if available.

Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Add New						

Step 4: Toxic (TAC/ODC) Emissions (lbs)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Add New							

Back to Emission Source Process Reference

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Operation 3: Screenshot #18: Input VOC Information

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions

Combustion
External Combustion
Internal Combustion
Use of organic materials
Spray Coating Booth
Other Use
Storage Tanks
Fugitive Combustion
Other Processes

Other Processes

Open Criteria Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES27			P1	1133.2		

Annual Throughput: 18,000.00000000 tons

Pollutant: VOC - Volatile Organic Compounds

Emission Factor (EF): 1.78000000e+0 lbs/tons

☐ Controlled EF value
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.99200000

Emission Factor Comment: co-composting VOC emissions after add-on control

If not using AQMD default emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information. Processes without this information are subject to audit.

Emission Factor Data Source: Source Test

Emissions: 2.56320000e+2 lbs

Click here to [delete](#) this Emission.

Save Cancel

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Ammonia	7664417	2.93000000e+0 lbs / tons	No	Source Test		1.31850000e+4

Add New

Back to Emission Source Process Reference

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Operation 3: Screenshot #19: Input Ammonia Information

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914 [Back to Emission Source Process Reference](#)

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

- Combustion
 - External Combustion
 - Internal Combustion
- Use of organics
 - Spray Coating/Spray Booth
 - Other Use of Organics
- Storage Tanks
- Fugitive Components
- Other Processes**

Open Toxic (TAC/ODC) Emission Information - Other Processes

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
ES27			P1	1133.2		

Annual Throughput
18,000.00000000 tons

TAC/ODC Toxic Pollutants / Ozone Depleting Compounds

Pollutant: **32 - Ammonia**

TAC Group: 32 - Ammonia

CAS # (Pollutant): 7664417 - Ammonia

Emission Factor (EF): 2.93000000e+0 lbs/tons

☐ Controlled EF value
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.75000000

Emission Factor Comment: co-composting Ammonia emissions after add-on control

If not using AQMD default emission factor please provide detailed references in the Emission Factor Comment box above or upload file with the information. Processes without this information are subject to audit.

Emission Factor Data Source: **Source Test**

Emissions: 1.31850000e+4 lbs

[Save](#) [Cancel](#)

[Add New](#)

[Back to Emission Source Process Reference](#)

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Operation 3: Screenshot #20: Data Entry Complete

AER Home Browse Facilities Access Facility **START HERE**

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914 [Back to Emission Source Process Reference](#)

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

- Combustion
 - External Combustion
 - Internal Combustion
- Use of organics
 - Spray Coating/Spray Booth
 - Other Use of Organics
- Storage Tanks
- Fugitive Components
- Other Processes**

Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **Please start with Step 1, edits to Step 1 may cause data in the following steps to reset.** Combustion emissions need to be reported separately under external or internal combustion process categories. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Step 1: Process [Optional: Mark as Completed](#)

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity	SCC
Open ES27			P1	1133.2		

[Click here to delete this process.](#)

Step 2: Throughput

Annual Throughput
Open 18,000.00000000 tons

Step 3: Criteria Emissions (lbs) [Use Default Emission Factors](#) if available.

Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open VOC	1.78000000e+0	lbs / tons	No	Source Test		2.56320000e+2

[Add New](#)

Step 4: Toxic (TAC/ODC) Emissions (lbs)

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open Ammonia	7664417	2.93000000e+0	lbs / tons	No	Source Test		1.31850000e+4

[Add New](#)

[Back to Emission Source Process Reference](#)

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Operations 1, 2 and 3: Screenshot #21: All Sources Are Added

AER Home
Browse Facilities
Access Facility
START HERE

Work In Progress - Facility ID: 999914 - SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) - Reporting period: 2021

Facility ID: 999914

1. Facility Information
2. Status Update
3. Combustion Fuels
4. Emission Sources (ES)
5. Report Process/Emissions
6. Perform Data Validation
7. Review Summaries
8. Print Facility Report
9. Report Submission

Build Reporting Structure

Emission Sources (ES) Classification

Summary: This section contains facility permit profile. Please make sure that every device has a specified Emission Source (ES). New emission sources can also be added.

Instruction: Add Devices (emissions sources) by clicking "Add New Emission Source". Edit devices by clicking "Profile" under the Emission Source (ES) Column. Add emission data by clicking "Open" under the Emissions column. Upload storage tank data by clicking on link "Click here" below.

Storage Tank Emissions Batch File Import - [Click here](#) for more instructions.

Add New Emission Source

Displaying 16 emission sources.

A/N
Permit NO

AER Device ID
Permit Device ID

Search:

Emission Source (ES)	Emissions	A/N	Permit NO	Permit Device ID	Permit Equipment Description	AER Device ID	ES Name	ES Group Name	Source Category	Has Emissions	Equipment	ES Status
Profile	Open					ES27	co-composting controlled		Other Processes	Y	Other process equipment	Work in progress
Profile	Open					ES26	greenwaste composting		Other Processes	Y	Other process equipment	Work in progress
Profile	Open					ES25	co-composting operation		Other Processes	Y	Other process equipment	Work in progress