SMAQMD BACT CLEARINGHOUSE

ACTIVE

CATEGORY Type: **MATERIAL - HANDLING**

BACT Category: Small Emitter BACT (PTE <10lb/day)

BACT Determination Number:	368	**BACT Determination Date:**	10/22/2024

Equipment Information

Permit Number: N/A - Generic BACT Determination

Equipment Description: Construction and Demolition/Mixed Debris Sorting Lines

Unit Size/Rating/Capacity: ALL

Equipment Location: N/A - Generic BACT Determination

BACT Determination Information

District Contact: Felix Trujillo, Jr. **Phone No.:** (279) 207-1154 **Email:** ftrujillo@airquality.org

ROCs	**Standard:**	
	Technology Description:	
	Basis:	
NOx	**Standard:**	
	Technology Description:	
	Basis:	
SOx	**Standard:**	
	Technology Description:	
	Basis:	
PM10	**Standard:**	
	Technology Description:	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions.
	Basis:	Achieved in Practice
PM2.5	**Standard:**	
	Technology Description:	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions.
	Basis:	Achieved in Practice
CO	**Standard:**	
	Technology Description:	

		Basis:	
	LEAD	**Standard:**	
		Technology Description:	
		Basis:	
Comments:		This is a generic BACT determination based on BACT determinations made, and published, by other air agencies in California and/or other States.	

Printed: 10/23/2024

777 12th Street, Suite 300

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Sacramento, CA 95814

BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

DETERMINATION NO.:	368
DATE:	9/5/24
ENGINEER:	Felix Trujillo, Jr.

Category/General Equip Description:	Material Processing
Equipment Specific Description:	Construction and Demolition/Mixed Debris Sorting Lines
Equipment Size/Rating:	Small Emitter BACT (< 10 lb/day)/Minor Source
Previous BACT Determination No.:	301

This BACT determination will update Determination #301 (1/19/22) for stationary construction and demolition/mixed debris sorting lines, including screening, conveying equipment and stockpiles. This BACT will cover operations that fall under the small emitter and minor source BACT category.

In general, construction and demolition/mixed debris sorting lines process material at constructon and demolition processing facilities. These lines process construction and demolition debris for recycling purposes. The lines consist of a feed hopper that is fed via a front-end loader, transfer conveyors, processing screens and stockpiles.

The District's Small Emitter and "Otherwise-Exempt Equipment" BACT Determinations policy states that units which are classified as small emitters (less than 10 lbs/day of VOC, NOx, SOx, PM10, or PM2.5 and less than 550 lbs/day of CO) and are located at non-major stationary sources are only required to meet BACT standards that have been achieved in practice. Therefore, this BACT determination will only be based on what is achieved in practice and will be only applied to small emitters at non-major sources. BACT will be evaluated on a case-by-case basis for units that do not fit this criteria.

A. BACT ANALYSIS:

Pursuant to the District's BACT Guidelines (2016), a review of the EPA, CARB, SCAQMD, SJVAPCD, BAAQMD and SDAPCD BACT Clearinghouses was performed. The District also reviewed any applicable rules from the aforementioned air districts that apply to this type of operation. The review of these sources showed no change in the rules or BACTs that were previously evaluated under BACT No. 301. BACT No. 301 will be attached as a reference for

this BACT determination (see Appendix A).

BACT No. 301 updated BACT No. 195, which applied to small emitters and minor sources. Since this BACT will apply to small emitters and minor sources**, the Technology Feasible section listed in BACT No. 195 remains valid and is included as an attachment to the BACT determination of BACT No. 301**, which is included in Appendix A of this document.

B. SELECTION OF BACT:

Small emitter BACT (< 10 lb/day) & Minor Source BACT for a construction and demolition/mixed debris sorting lines is the following:

BACT # 368 for a Construction and Demolitio/Mixed Debris Sorting Lines		
Pollutant	**Standard**	**Source**
VOC	No Standard	
NOx	No Standard	
SOx	No Standard	
PM10	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	SMAQMD
PM2.5	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	SMAQMD
CO	No Standard	

APPROVED BY: *Brian F Krebs* **DATE:** 10-22-2024

Appendix A
BACT No. 301

777 12th Street, Suite 300

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Sacramento, CA 95814

BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

DETERMINATION NO.:	301
DATE:	12/16/21
ENGINEER:	Felix Trujillo, Jr.

Category/General Equip Description:	Material Processing
Equipment Specific Description:	Construction and Demolition/Mixed Debris Sorting Lines
Equipment Size/Rating:	Small Emitter BACT (< 10 lb/day)
Previous BACT Determination No.:	195

This BACT determination will update Determination #195 (10/19/18) for stationary construction and demolition/mixed debris sorting lines, including screening, conveying equipment and stockpiles.

BACT 195 was determined under the project for A/C's 25563 and 25564 (Zanker Road Resource Management, Ltd.). This BACT will be determined under the project for A/C 27023 for the same facility. Since the emissions from these types of operations are low (< 10 lb/day), this new determination will only apply to small emitters.

The District's Small Emitter and "Otherwise-Exempt Equipment" BACT Determinations policy states that units which are classified as small emitters (less than 10 lbs/day of VOC, NOx, SOx, PM10, or PM2.5 and less than 550 lbs/day of CO) and are located at non-major stationary sources are only required to meet BACT standards that have been achieved in practice. Therefore, this BACT determination will only be based on what is achieved in practice and will be only applied to small emitters at non-major sources. BACT will be evaluated on a case-by-case basis for units that do not fit this criteria.

In general, construction and demolition/mixed debris sorting lines process material at constructon and demolition processing facilities. These lines process construction and demolition debris for recycling purposes. The lines consist of a feed hopper that is fed via a front-end loader, transfer conveyors, processing screens and stockpiles.

A. BACT ANALYSIS:

Pursuant to the District's BACT Guidelines (2016), a review of the EPA, CARB, SCAQMD, SJVAPCD, BAAQMD and SDAPCD BACT Clearinghouses was performed. The District also reviewed any applicable rules from the aforementioned air districts that apply to this type of operation. The review of these sources showed no change in the rules or BACTs that were previously evaluated under BACT No. 195. BACT No. 195 will be attached as a reference for this BACT determination (see Appendix A).

B. SELECTION OF BACT:

Small emitter BACT (< 10 lb/day) for a construction and demolition/mixed debris sorting lines is the following:

BACT # 301 For a Construction and Demolitio/Mixed Debris Sorting Lines		
Pollutant	**Standard**	**Source**
VOC	No Standard	
NOx	No Standard	
SOx	No Standard	
PM10	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	SMAQMD
PM2.5	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	SMAQMD
CO	No Standard	

APPROVED BY: _____ **DATE:** _____

Appendix A
BACT No. 195

CATEGORY: **MATERIAL PROCESSING**

BACT Size: Small Emitter BACT (< 10lb/day)/Minor So **TRUCTION & DEMOLITION DEBRIS SORTING LINE**

BACT Determination Number: 195	**BACT Determination Date:** 10/19/2018

Equipment Information

Permit Number: 25563
Equipment Description: CONSTRUCTION & DEMOLITION DEBRIS SORTING LINE
Unit Size/Rating/Capacity:
Equipment Location: ZANKER ROAD RESOURCE MGMT, LTD DBA FLORIN PERKINS
4201 FLORIN PERKINS RD
SACRAMENTO, CA

BACT Determination Information

ROCs	**Standard:**	
	Technology Description:	
	Basis:	
NOx	**Standard:**	
	Technology Description:	
	Basis:	
SOx	**Standard:**	
	Technology Description:	
	Basis:	
PM10	**Standard:**	
	Technology Description:	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions.
	Basis:	Achieved in Practice
PM2.5	**Standard:**	
	Technology Description:	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions.
	Basis:	Achieved in Practice
CO	**Standard:**	
	Technology Description:	
	Basis:	
LEAD	**Standard:**	
	Technology Description:	
	Basis:	

Comments: Small Emitter (< 10 lb/day)/Minor Source BACT for Construction & Demolition/Mixed Debris Sorting Lines.

District Contact: Felix Trujillo Phone No.: (916) 874 - 7357 email: ftrujillo@airquality.org

777 12th Street, Third Floor

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Sacramento, CA 95814

BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

DETERMINATION NO.: 195

DATE: October 19, 2018

ENGINEER: Felix Trujillo, Jr.

Category/General Equip Description: Material Processing

Equipment Specific Description: Construction and Demolition/Mixed Debris Sorting Lines

Equipment Size/Rating: Small Emitter BACT (< 10 lb/day)/Minor Source

Previous BACT Det. No.: None

This BACT determination will apply to stationary construction and demolition/mixed debris sorting lines, including screening, conveying equipment and stockpiles.

This BACT was determined under the project for A/C's 25563 and 25564 (Zanker Road Resource Management, Ltd.).

BACT ANALYSIS

A: ACHIEVED IN PRACTICE (Rule 202, §205.1a)

The following control technologies are currently employed as BACT for construction and demolition/mixed debris sorting system:

District/Agency	Best Available Control Technology (BACT)/Requirements
US EPA	**BACT** Source: EPA RACT/BACT/LAER Clearinghouse The EPA RACT/BACT/LAER Clearinghouse does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None

District/Agency	Best Available Control Technology (BACT)/Requirements
ARB	**BACT** Source: ARB BACT Clearinghouse The ARB BACT Clearinghouse does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None
SMAQMD	**BACT** Source: SMAQMD BACT Clearinghouse The SMAQMD does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None
South Coast AQMD	**BACT** Source: SCAQMD BACT Clearinghouse for Non-Major Polluting Facilities. The SCAQMD does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None
San Diego County APCD	**BACT** Source: SDCAPCD BACT Clearinghouse The SDAPCD does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None
Bay Area AQMD	**BACT** Source: BAAQMD BACT Clearinghouse The BAAQMD does not have a BACT determination for this source category. **RULE REQUIREMENTS**: None
San Joaquin Valley APCD	**BACT** Source: SJVAPCD BACT Clearinghouse The SJVAPCD does not have a BACT determination for thie source category.

District/Agency	Best Available Control Technology (BACT)/Requirements
	RULE REQUIREMENTS: None

The following control technologies have been identified and are ranked based on stringency:

SUMMARY OF ACHIEVED IN PRACTICE CONTROL TECHNOLOGIES		
Pollutant	**Standard**	**Source**
VOC	No Standard	
NOx	No Standard	
SOx	No Standard	
PM10	No Standard	
PM2.5	No Standard	
CO	No Standard	

The following control technologies have been identified as the most stringent, achieved in practice control technologies:

BEST CONTROL TECHNOLOGIES ACHIEVED (A)		
Pollutant	**Standard**	**Source**
VOC	No Standard	
NOx	No Standard	
SOx	No Standard	
PM10	No Standard	
CO	No Standard	

B. TECHNOLOGICALLY FEASIBLE AND COST EFFECTIVE (Rule 202, §205.1.b.):

Technologically Feasible Alternatives:
Any alternative basic equipment, fuel, process, emission control device or technique, singly or in combination, determined to be technologically feasible by the Air Pollution Control Officer. The table below shows the technologically feasible alternatives identified as capable of reducing emissions beyond the levels determined to be "Achieved in Practice" as per Rule 202, §205.1.a.

Pollutant	Technologically Feasible Alternatives (A)
VOC	Not applicable
NOx	Not applicable
SOx	Not applicable
PM10	1. Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions 2. Full enclosure of processing equipment served by a Baghouse, 3. Enclosed processing equipment.
PM2.5	Same as PM10
CO	Not applicable

(A) Alternatives are discussed below

PM10 and PM2.5 – Alternative 1:

Although, there are no specific BACTs for these types of operations listed in the above

BACT clearinghouses, the use of water spray equipment for the control of PM10 and PM2.5 have been deemed achieved in practice for dust control from conveyors, screens, transfer points and stockpiles for operations such as aggregate processing and concrete recycling operations. The applicant is proposing to use water spray equipment for the control of PM10 and PM2.5 and will therefore be assumed to be cost effective for the project and will not require a cost analysys.

PM10 and PM2.5 – Alternatives 2 and 3:

This operation will process construction and demolition debris (plywood, metals, plastic, wood, etc..) and mixed debris from commercial and residential (household items, furniture, etc..), which vary in size. The materials are transferred to the initial hopper via a front-end loader, which feeds a vibratory screen. The screen will remove dirt and small material from the process line. The larger materials will continue down the line to the sorting line, where workers sort the material into their perspective bins. It is not technologically feasible to enclose the screen or conveyors due to the size of some of the materials being processed. Enclosure of the conveyors would cause the lines to clog and may result in damage to the processing equipment.

Using the PM10 BACT standard for PM2.5:
Since both, PM10 and PM2.5 trigger BACT at >0 lb/day and PM2.5 is a subset of PM10, BACT for PM2.5 will be triggered whenever BACT is triggered for PM10. Therefore, BACT for PM2.5 will be set to be the same as for PM10.

C. SELECTION OF BACT:
Small emitter BACT (< 10 lb/day) & Minor Source BACT for a construction and demolition recycling/sorting line is the following:

BACT FOR A CONSTRUCTION AND DEMOLITION RECYCLING/MIXED DEBRIS SORTING SYSTEM		
Pollutant	**Standard**	**Source**
VOC		
NOx		
SOx		
PM10	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	Proposed by applicant
PM2.5	Use of water spray equipment on conveyors, screens, transfer points and stockpiles as necessary to control fugitive emissions	Proposed by applicant
CO		

REVIEWED BY: _____ **DATE:** _____

APPROVED BY: Brian F Hunt **DATE:** 10-19-18