

CATEGORY:

**MATERIAL PROCESSING**

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

<b>BACT Determination Number:</b> 195	<b>BACT Determination Date:</b> 10/19/2018
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**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**

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

**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



## 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	<p><b><u>BACT</u></b>  <a href="#">Source: EPA RACT/BACT/LAER Clearinghouse</a></p> <p>The EPA RACT/BACT/LAER Clearinghouse does not have a BACT determination for this source category.</p> <p><b><u>RULE REQUIREMENTS:</u></b>  None</p>

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

District/Agency	Best Available Control Technology (BACT)/Requirements
	<b><u>RULE REQUIREMENTS:</u></b> 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 analysis.

**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:

<b>BACT FOR A CONSTRUCTION AND DEMOLITION RECYCLING/MIXED DEBRIS SORTING SYSTEM</b>		
<b>Pollutant</b>	<b>Standard</b>	<b>Source</b>
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:                     *Don F. [Signature]*                     DATE:                     10-19-18