SMAQMD BACT CLEARINGHOUSE

EXPIRED

CATEGORY Type: **MATERIAL PROCESSING**

BACT Category: MINOR SOURCE

BACT Determination Number: 170	**BACT Determination Date:** 3/8/2018

Equipment Information

Permit Number: 25130
Equipment Description: TROMMEL SCREEN - PORTABLE
Unit Size/Rating/Capacity: ALL
Equipment Location: L AND D LANDFILL LIMITED PARTNERSHIP
8635 FRUITRIDGE RD SACRAMENTO, CA

BACT Determination Information

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

ROCs	**Standard:**	
	Technology Description:	
	Basis:	
NOx	**Standard:**	
	Technology Description:	
	Basis:	
SOx	**Standard:**	
	Technology Description:	
	Basis:	
PM10	**Standard:**	
	Technology Description:	VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials.
	Basis:	Achieved in Practice
PM2.5	**Standard:**	
	Technology Description:	VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials.
	Basis:	Achieved in Practice
CO	**Standard:**	
	Technology Description:	
	Basis:	
LEAD	**Standard:**	
	Technology Description:	
	Basis:	

Comments: Small Emitter/Minor Source BACT. Processed for permits 25130, 25131 & 25132. This BACT is for a portable gypsum drywall recycling operation.

Printed: 2/10/2021

777 12th Street, Third Floor

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Sacramento, CA 95814

BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

DETERMINATION NO.: 170

DATE: January 11, 2018

ENGINEER: Felix Trujillo, Jr.

Category/General Equip Description: Miscellaneous

Equipment Specific Description: Portable Gypsum Drywall Recycling Trommel Screen

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

Previous BACT Det. No.: None

SMAQMD's BACT Clearinghouse does not have a BACT guideline for portable gypsum drywall recycling operations. Therefore, a new BACT determination was performed under the project for A/C 25130 (L&D Landfill Limited Partnership).

BACT ANALYSIS

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

The following control technologies are currently employed as BACT for portable gypsum/drywall trommel screen operations:

<table>
<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>US EPA</td><td><u>BACT</u>
<u>Source: EPA RACT/BACT/LAER Clearinghouse</u>
<table>
<tr><td colspan="2">Portable Gypsum Drywall Recycling Trommel Screen</td></tr>
<tr><td>VOC</td><td>No standard</td></tr>
<tr><td>NOx</td><td>No standard</td></tr>
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<tr><td></td><td><u>RULE REQUIREMENTS</u>:
None</td></tr>
<tr><td>ARB</td><td><u>BACT</u>
<u>Source: ARB BACT Clearinghouse</u>
<table><tr><td colspan="2">Portable Gypsum Drywall Recycling Trommel Screen</td></tr><tr><td>VOC</td><td>No standard</td></tr><tr><td>NOx</td><td>No standard</td></tr><tr><td>SOx</td><td>No standard</td></tr><tr><td>PM10</td><td>No standard</td></tr><tr><td>PM2.5</td><td>No standard</td></tr><tr><td>CO</td><td>No standard</td></tr></table><u>RULE REQUIREMENTS</u>:
None</td></tr>
<tr><td>SMAQMD</td><td><u>BACT</u>
Source: SMAQMD BACT Clearinghouse
<table><tr><td colspan="2">Portable Gypsum Drywall Recycling Trommel Screen</td></tr><tr><td>VOC</td><td>No standard</td></tr><tr><td>NOx</td><td>No standard</td></tr><tr><td>SOx</td><td>No standard</td></tr><tr><td>PM10</td><td>No standard</td></tr><tr><td>PM2.5</td><td>No standard</td></tr><tr><td>CO</td><td>No standard</td></tr></table><u>RULE REQUIREMENTS</u>:
Rule 401 – Ringlemann Chart (4-19-83)
This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity. The rule sets an opacity standard of 20% opacity for this type of operation. Water sprays are proposed by the applicant to meet this limit and they have been used by similar operations (aggregate processing) in the past to meet such standard. The applicant is limited in the amount of water that can be added to the gypsum material as this would create plugging issues with the screen and thus fhe reason for the proposed 20% opacity.</td></tr>
</table>

<table>
<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>South Coast AQMD</td><td>
<u>BACT</u>
Source: <u>SCAQMD BACT Guidelines for Non-Major Polluting Facilities, page 13</u>.
<table>
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<u>RULE REQUIREMENTS</u>:
Rule 401 – Visible Emissions (11-9-01)
This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity. The rule sets an opacity standard of 20% opacity for this type of operation.
</td></tr>
<tr><td>San Diego County APCD</td><td>
<u>BACT</u>
Source: <u>NSR Requirements for BACT, page 27.</u>
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The SDCAPCD has a BACT trigger level of 10 lb/day.

<u>RULE REQUIREMENTS</u>:
Rule 50 – Visible Emissions (8-13-97)
This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity. The rule sets an opacity standard of 20% opacity for this type of operation.
</td></tr>
</table>

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<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>Bay Area AQMD</td><td>
<u>BACT</u>
Source: <u>BAAQMD BACT Guideline Document 180.1 (8/5/91)</u>

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</table>

The BAAQMD has a BACT trigger level of 10 lb/day.

<u>RULE REQUIREMENTS</u>:
Regulation 6 - Particulate Matter Rule 1 – General Requirements (12-5-07)
This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity. The rule sets an opacity standard of 20% opacity for this type of operation.
</td></tr>
<tr><td>San Joaquin Valley APCD</td><td>
<u>BACT</u>
Source: SJVUAPCD BACT Guideline 6.4.1

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The SJVAPCD BACT trigger level is 2 lb/day.

<u>RULE REQUIREMENTS</u>:
Rule 4101 – Visible Emissions (2-17-05)
This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity. The rule sets an opacity standard of 20% opacity for this type of operation.
</td></tr>
</table>

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	1. VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials	SMAQMD, SCAQMD, SJVAPCD, BAAQMD, SDAPCD, APPLICANT
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		
Pollutant	**Standard**	**Source**
VOC	No Standard	
NOx	No Standard	
SOx	No Standard	
PM10	VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials	SMAQMD, SCAQMD, SJVAPCD, BAAQMD, SDAPCD, APPLICANT
PM2.5	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
VOC	None identified
NOx	None identified
SOx	None identified
PM10	Baghouse
PM2.5	Baghouse
CO	None identified

This operation is a portable gypsum drywall trommel screen that will be moved throughout the processing area. The use of a baghouse requires electrical power. The engines on these types of equipment can only power the equipment that is associated with the manufactured unit and cannot power additional equipment such as baghouses. This BACT will also apply to facilities that don't own their own equipment. These facilities would be issued flex permits, that will allow them to use equipment from various third party contractors. The requirement of a baghouse would put the burden on the operator or facility to obtain an additional permit for the baghouse. The trommel screen is on wheels and can be easily moved from one location to another. The use of a baghouse would reduce the mobility of the equipment. There would also be a variation in the hp rating of the equipment, which may require a specific baghouse to be used with specific equipment. Therefore, it is not technologically feasible to use a baghouse with this type of portable 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 portable gypsum drywall trommel screen is the following:

BACT FOR PORTABLE GYSPUM DRYWALL TROMMEL SCREEN		
Pollutant	**Standard**	**Source**
VOC	No standard	
NOx	No standard	
SOx	No standard	
PM10	VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials	SMAQMD, SJVAPCD, SCAQMD
PM2.5	VEE < or equal to 20% Opacity; Water spray or adequate moisture of process materials	SMAQMD, SJVAPCD, SCAQMD
CO	No standard	

REVIEWED BY: _____ **DATE:** _____

APPROVED BY: _____ **DATE:** 3/8/18