

# BEST AVAILABLE CONTROL TECHNOLOGY & TOXIC BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

	DETERMINATION NO.:	117	
	DATE:	1/14/2016	
	ENGINEER:	Venk Reddy	
Category/General Equip			
Description:	Concrete Batch Plant		
	Concrete Batch Plant greater than or ed		
Equipment Specific Description:	Cubic yards per batch		
Equipment Size/Rating:	Minor Source BACT		
Previous BACT Det No:	48		

This BACT determination will update determination # 48 for concrete batch plants with a throughput greater than or equal to 5 cubic yards per batch

This BACT was determined under the project for A/C 24730 (Syar Concrete LLC).

#### **BACT ANALYSIS**

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

The following control technologies are currently employed as BACT for concrete batch plants with a throughput greater than or equal to 5 cubic yards per batch

District/ Agency	Best Ava	ailable Control Technology (BACT)/ Requirements
	BACT	EPA/ RACT/BACT/LEAR Clearinghouse
	Concret	e Batch Plants
	VOC	No Standard
	NOx	No Standard
	SOx	No Standard
US EPA	PM10	<ol> <li>Maintain a min 1.5% moisture content, control efficiency of 81.5%. Nellis Air Force Base Concrete Batch Plant 02/26/2008</li> <li>Enclosure, control efficiency of 62%, Aggregate/Cement Mixing 12/11/2006</li> </ol>
	PM2.5	No Standard
	CO	No Standard
	Rule Reg None	<u>uirements</u>

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
	BACT		
	Source: A	RB BACT Clearinghouse Santa Barbara County APCD	
	Concrete	e Batch Plants	
	voc	No Standard	
	NOx	No Standard	
	SOx	No Standard	
	PM10	Aggregate Storage at min 4% moisture. Vent filters for weigh batcher	
		and storage silos	
ARB			
	PM2.5	No Standard	
	CO	No Standard	
	BACT de more info	T determination was found to be the most stringent Achieved in Practice termination published in the ARB clearinghouse. See Attachment A for rmation.  uirements	

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
	From SMAQMD BACT #48 issued on 3/3/11		
	VOC No Standard		
	NOx No Standard		
	SOx	No Standard	
	PM10	Weigh Batcher/Mixer & Loadout vented to baghouse; storage Silo enclosed and vented to a baghouse. Storage piles suppressed with water spray <5% opacity; roads suppressed with water sprays	
SMAQMD	PM2.5	No Standard	
	CO No Standard		
	Rule Req None	<u>uirements</u>	

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
BACT  From SCAQMD BACT Guidelines for Non Major Polluting Facilities, Page 33			
	VOC No Standard		
	NOx No Standard		
	SOx	No Standard	
	PM10	Baghouse Venting the cement weigh hopper and mixer truck loading station and adequate aggregate moisture (07-11-97)	
South Coast AQMD	PM2.5	No Standard	
AQIVID	CO	No Standard	
	Rule Reg None	<u>uirements</u>	

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
	From SI	DCAPCD NSR Requirements for BACT, Page 3-9	
	VOC	No Standard	
	NOx	No Standard	
	SOx	No Standard	
San Diego County APCD	PM10	<ol> <li>Enclosed aggregate and cement weigh hoppers, screw conveyors and concrete batcher vented to a 99% efficient fabric filter baghouse.</li> <li>Flexible shroud which seals to the truck. Shroud vented to 99% efficient fabric baghouse</li> <li>Water spray system for sand and aggregate transfer points. Sand and aggregate storage piles adequately wet to maintain a minimum moisture content of 4% by weight</li> <li>Open areas maintained adequately wet to prevent fugitive emissions in excess of 20 percent opacity or Ringlemann 1</li> </ol>	
	PM2.5	No Standard	
	CO	No Standard	
	Rule Red	uirements	

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
Bay Area AQMD	From BAbatch VOC NOx SOx PM10  PM2.5 CO	AAQMD BACT Guideline – Greater than or equal to 5 cubic yards per  No Standard No Standard No Standard Water spray for aggregate handling, aggregate storage piles and site road surfaces; and enclosure and venting of cement handling and storage to a baghouse No Standard No Standard No Standard	

District/ Agency	Best Available Control Technology (BACT)/ Requirements		
San Joaquin Valley APCD	From Sobatch VOC NOX SOX PM10  PM2.5 CO	No Standard No Standard No Standard Fugitive emissions vented to a baghouse and opacity of the uncaptured emissions not to exceed 20% for a period or periods aggregating more than three minutes during any one hour. (10/13/1998) No Standard No Standard No Standard  No Standard  uirements	

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

	SUMMARY OF ACHIEVED IN PRACTICE CONTROL TECHNOLOGIES
VOC	No Standard
NOx	No Standard
SOx	No Standard
PM10	Control Strategy As defined by SDCAPCD.
	<ol> <li>Baghouse control on Load out, weigh Batcher/mixer and storage silo, storage piles and roads sprayed with Water &lt;5% opacity - SMAQMD.</li> </ol>
	<ol> <li>Aggregate Storage at min 4% moisture. Vent filters for weigh batcher and storage silos - ARB.</li> </ol>
	<ol> <li>Fugitive emissions vented to a baghouse and opacity of the uncaptured emissions not to exceed 20% for a period or periods aggregating more than three minutes during any one hour SJVAPCD, BAAQMD, SCAQMD.</li> </ol>
	5. Enclosure only, Federal Clearinghouse
	6. Water spray only, Federal Clearinghouse
PM2.5	No Standard
CO	No Standard

BACT & T-BACT Determination Concrete batch Plant >= 5 cubic yard per batch October 1, 2015 Page 6 of 8

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	<ol> <li>Enclosed aggregate and cement weigh hoppers, screw conveyors and concrete batcher vented to a 99% efficient fabric filter baghouse.</li> <li>Flexible shroud which seals to the truck .Shroud vented to 99% efficient fabric baghouse</li> <li>Water spray system for sand and aggregate transfer points. Sand and aggregate storage piles adequately wet to maintain a minimum moisture content of 4% by weight</li> <li>Open areas maintained adequately wet to prevent fugitive emissions in excess of &lt;5 percent opacity</li> </ol>	SDCAPCD/SMAQMD (BACT)
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. As fabric filters are generally considered to achieve the highest level of particulate control for processes that they may be applied to, and since the achieved in practice BACT determination has been determined to be the use of a 99% efficient fabric filter, no additional technologies were analyzed as technologically feasible.

BACT & T-BACT Determination Concrete batch Plant >= 5 cubic yard per batch October 1, 2015 Page 7 of 8

#### C. SELECTION OF BACT:

Based on the fact that no other technologically feasible control technologies were identified as being more appropriate with a higher level of control efficiency than a fabric filter for particulate control for this application, BACT for PM10 will be the highest level of control that has been achieved in practice that used this technology. As PM2.5 is a subset of PM10, BACT for PM2.5 will be set to the same standard as is set for PM10.

BACT For Concrete Batch Plants Greater than or equal to 5 cubic yard per batch.			
Pollutant	Standard	Source	
VOC	No Standard		
NOx	No Standard		
SOx	No Standard		
PM10	<ol> <li>Enclosed aggregate and cement weigh hoppers, screw conveyors and concrete batcher vented to a 99% efficient fabric filter baghouse, and</li> <li>Flexible shroud which seals to the truck .Shroud vented to 99% efficient fabric baghouse, and</li> <li>Water spray system for sand and aggregate transfer points. Sand and aggregate storage piles adequately wet to maintain a minimum moisture content of 4% by weight, and</li> <li>Open areas maintained adequately wet to prevent fugitive emissions in excess of &lt;5 percent opacity</li> </ol>	SDCAPCD/SMAQMD	
PM2.5 (A)	Equivalent to PM10 control standards	SDCAPCD/SMAQMD	
CO	No Standard		

<sup>(</sup>A) The control of PM 2.5 is considered equivalent to the control of PM 10.

#### D. SELECTION OF T-BACT:

Toxics are in the form of PM matter. The control of particulate matter through meeting the BACT standard will also control toxics found in the PM. Therefore meeting the BACT controls for the control of PM will be considered equivalent to meeting T-BACT requirements.

REVIEWED BY:		DATE:	
APPROVED BY:	Joye Al sym	DATE: <u> - 4- 6</u>	

BACT & T-BACT Determination Concrete batch Plant >= 5 cubic yard per batch October 1, 2015 Page 8 of 8

Appendix A - Statewide BACT Determination

Back

Best Available Control Technology (BACT) Guideline6.2.3 A

Emissions Unit:

Dry mix concrete/cement bagging machine

Equipment Rating:

1,292 tons/day

10/13/1998

Facility:

Basalite Block Tracy

References:

ATC #: N-1051-15-1 & N-1051-16-1 Project #: 970640

Location:

Date of Determination:

Pollutant

BACT

СО

BACT NOT TRIGGERED

NOx

BACT NOT TRIGGERED

PM10

Fugitive emissions vented to a baghouse and opacity of the uncaptured emissions not to exceed 20% for a period or periods aggregating more than three minutes during any one hour. BACT NOT TRIGGERED

SOx VOC

BACT NOT TRIGGERED

**BACT Status** 

Comment

Small Emitter

Technologically Feasible BACT

from SJAPCD

#### **VENK REDDY**

From:

Annicchiarico, John < John. Annicchiarico@sdcounty.ca.gov>

Sent:

Monday, December 14, 2015 11:58 AM

To:

VENK REDDY

Cc:

**BRIAN KREBS** 

Subject:

RE: Concrete bath plant BACT question

Venk,

I'm sorry I haven't replied sooner as we have some feedback for you. Yes, wet cement is not a good idea for filters. The guidance, as stated on our website is not up to date. We require 100% capture and venting through a baghouse. We do not require both water spray and 100% capture. Our BACT trigger level is 10 # per day and if BACT is not triggered we could allow for less than 100 percent capture with water spray for fugitive dust control.

Hope this helps.

Best regards,

John Annicchiarico Senior Air Pollution Control Engineer San Diego Air Pollution Control District (858) 586-2733

From: VENK REDDY [mailto:VReddy@airquality.org]

Sent: Monday, December 14, 2015 11:51 AM

**To:** Annicchiarico, John **Cc:** BRIAN KREBS

Subject: RE: Concrete bath plant BACT question

Hi John, By any chance do you get any feedback on the concrete Batch Plant BACT from your staff?

Thanks Venk

From: VENK REDDY

Sent: Tuesday, December 08, 2015 2:45 PM
To: John.Annicchiarico@sdcounty.ca.gov

Cc: BRIAN KREBS

Subject: Concrete bath plant BACT question

HI John thanks for taking my call this afternoon.

On page 3-9 Fee Schedule 08A under Concrete Batch Plants of the San Diego BACT manual, I have a question regarding the BACT determination of the Flexible shroud.

San Diego's BACT determination for the shroud is as follows

Flexible shroud which seals to the truck along with a water sprinkler system used when dry products are mixed.

Shroud vented to a 99% efficient fabric filter baghouse.

An applicant with a concrete batch plant operation has a shroud that is vented to a baghouse, but it is does not has have a water sprinkler system. I was wondering if the shroud is vented to a baghouse, is the water sprinkler system required?

I would think it may not be a good idea to get wet concrete sucked up into the baghouse. Any insight on the water sprinkler system would be appreciated.

**Thanks** 

Venk Permit Engineer SMAQMD 916-874-4861

# From SDAQMD

## CONCRETE BATCH PLANTS Fee Schedule 08A

Review the BACT Control Option listed below. The applicant must propose the Control Option listed or perform a Top-down BACT Analysis as described in Section 4 to justify the selection of another Control Option. The applicant will be required to provide documentation that the Control Option selected meets the requirements listed in the table.

	VOC	NOx	SOx	PM*
BACT Emission Rate Limit	(N/A)	(N/A)	(N/A)	<0.008 grain/dscf
BACT Control Option	(N/A)	(N/A)	(N/A)	99% efficient Fabric or Cartridge type vent filters on silos.  Enclosed aggregate and cement weigh hoppers, screw conveyors and concrete batcher vented to a 99% efficient fabric filter baghouse.  Flexible shroud which seals to the truck along with a water sprinkler system used when dry products are mixed. Shroud vented to 99% efficient fabric filter baghouse  Water spray system for sand and aggregate transfer points.  Sand and aggregate storage piles adequately wet to maintain a minimum moisture content of 4% by weight.  Open areas maintained adequately wet to prevent fugitive emissions in excess of 20 percent opacity or Ringlemann 1.  (A/P)

The applicant may choose to limit the Potential to Emit (PTE) from the equipment to less than 10 pounds per day for each pollutant in lieu of meeting the stated BACT requirement.

<sup>\*</sup> The BACT emission rate limit is based on TSP which is used as a surrogate for PM10.

# Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\* SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

10-20-2000 Rev. 0

Equipment or Process:

Concrete Batch Plant

Inorganic Cement Weigh Hopper and the Mixer Truck Loading Handling and Adequate Moisture in Aggregate Baghouse Venting the Station; and Adequate Baghouse for Cement Aggregate Moisture (07-11-97)  $PM_{10}$ Water Spray (1988)00 Criteria Pollutants SOx NOX VOC < 5 Cubic Yards/Batch ≥ 5 Cubic Yards/Batch Central Mixed, Central Mixed, Rating/Size Transit-Mixed

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

## BAY AREA AIR QUALITY MANAGEMENT DISTRICT Best Available Control Technology (BACT) Guideline

## Source Category

Source:	Concrete Batch Plants	Revision:	1
Class:	≥ 5 Cubic yards per batch	Document #: Date:	09/04/91

## Determination

TOOT T TITE A STEE		1
POLLUTANT	Technologically Feasible/ Cost Effective     Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. n/a 2. n/a	1. n/a 2. n/a
NOx	1. n/a 2. n/a	1. n/a 2. n/a
$SO_2$	1. n/a 2. n/a	1. n/a 2. n/a
II ('())	1. n/a 2. n/a	1. n/a 2. n/a
PM <sub>10</sub>	1. Water spray w/ chemical suppressants for aggregate handling and storage piles; and Paving of site road surfaces; and Enclosure and venting of cement handling and storage to baghouse w/ ≤0.0013 gr/dscf <sup>a,b</sup> 2. Water spray for aggregate handling, aggregate storage piles, and site road surfaces; and Enclosure and venting of cement handling and storage to baghouse w/ ≤0.01 gr/dscf <sup>a</sup>	<ol> <li>BAAQMD Approved Design and Operation<sup>a</sup></li> <li>BAAQMD Approved Design and Operation<sup>a</sup></li> </ol>
NPOC		1. n/a 2. n/a

## References

D 11016D
a. BAAQMD
I. DAAQNID
b. BAAQMD A #4770
) BAA(IMI) A #4 / /II
1 B1H121HD 11 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1

		SMAQMD BACT	CLEARINGHOUSE	
CATEGOR	RY:	COI	NCRETE PLANT	
BACT Size: Minor Source BACT				TE BATCH PLA
BACT Determination Number: 48			BACT Determination Date:	3/31/201
		Equipmen	t Information	
Unit Size/	umber: N/A nt Description: /Rating/Capacity: nt Location:	Generic BACT Determinat	PLANT	
		BACT Determina	ation Information	
ROCs	Standard:			
	Technology Description:			Ą
	Basis:			
NOx	Standard:			
	Technology Description:			
	Basis:			
SOx	Standard:			
	Technology Description:			
	Basis:			
PM10	Standard:			
	Technology Description:	A. Weigh Batcher/Mixer & Load baghouse; C. Storage piles sur water sprays.	dout vented to baghouse; B. Storage silos enclose pressed with water sprays < 5% opacity, D. Roads	d and vented to supressed with
	Basis:	Cost Effective		
PM2.5	Standard:			
	Technology Description:			
	Basis:			
СО	Standard:			
	Technology			
	Description: Basis:			
LEAD	Standard:			
LEAD	Technology			
	Description: Basis:			
	1240.0.		4	

Comments: BACT determination from Policy Manual dated March 31, 2011.

District Contact: Jeff Weiss Phone No.: (916) 874 - 4862 email: jweiss@airquality.org

Printed: 9/30/2015



## **BACT Determination Detail**

# Category

Source Category:

Concrete Batch Plant: >= 5 cubic yard per batch

SIC Code

3273

**NAICS** Code

327320

# **Emission Unit Information**

Manufacturer:

Stephens

Type:

Stationary Use

Model:

Eagle

**Equipment Description:** 

Ready-Mix Concrete Batch Plant (w/ special double shroud

design)

Capacity / Dimentions

1500 yd3/day

Fuel Type

Multiple Fuel Types

Operating Schedule (hours/day)/(days/week)/ (weeks/year)e

Continuous (10/5/52)

**Function of Equipment** 

Produce ready-mix concrete for construction

PM Limit

0.003

**PM Limit Units** 

gr/dscf

PM Average Time

PM Control Method

Add-on

PM Control Method Desc

Baghouse and Vent Filters (3x)

PM Percent Control

Efficiency

PM Cost Effectiveness

(%/ton)

PM Incremental Cost

Effectiveness (%/ton)

PM Cost Verified (Y/N)

PM Dollar Year

PM10 Limit

0.003

PM10 Limit Units

gr/dscf

PM10 Average Time

PM10 Control Method

Add-on

PM10 Control Method Desc

Baghouse and Vent Filters (3x)

PM10 Percent Control Efficiency PM10 Cost Effectiveness (%/ton)

PM10 Incremental Cost Effectiveness (%/ton)

PM10 Cost Verified (Y/N)

PM10 Dollar Year

# Project / Permit Information

App	lication.	/Permit	No.:
-----	-----------	---------	------

ATC 11884

Application Completeness

Date:

New

**New Construction** 

Construction/Modification:

ATC Date:

09-29-2006

PTO Date:

Startup Date:

Technology Status:

**BACT Determination** 

Source Test Available:

No

Source Test Results:

# Facility / District Information

Facility Name:

Mission Ready Mix - Goleta

Facility Zip Code:

93117

Facility County:

Santa Barbara

District Name:

Santa Barbara County APCD

**District Contact:** 

Mike Goldman

Contact Phone No.:

(805) 961-8821

Contact E-Mail:

mfg@sbcapcd.org

## Notes

Notes:

Special double-shroud design fabricated for this project to reduce emissions from the truck loading operation. Call to get copy of permit for details. Water Spray Bars for: storage bunkers/piles, aggregate receiving hopper, radial belt conveyor, elevated aggreagte storage bins (min 4% moisture). Batcher Vent filter for the weigh batcher. Cartridge Vent filter for the cement silo. Cartridge Vent filter for the fly ash silo.

Report Error In Determination



## **BACT Determination Detail**

# Category

Source Category:

Concrete Batch Plant: >= 5 cubic yard per batch

SIC Code

3723

**NAICS Code** 

327320

## **Emission Unit Information**

Manufacturer:

Device 1-C&W Manufacturing, Device 2-Griffin Environmental

Type:

**Dust Collectors** 

Model:

RA-140 & JA-160-SA

**Equipment Description:** 

Concrete Batch Plant

Capacity / Dimentions

72 bags and 160 bags respectively

**Fuel Type** 

None-applicable

Multiple Fuel Types

Variable ( / / )

Operating Schedule (hours/day)/(days/week)/ (weeks/year)e

Function of Equipment

Control of PM

PM10 Limit

0.025

PM10 Limit Units

lb/cuyd

PM10 Average Time

PM10 Control Method

Add-on

PM10 Control Method Desc

enclosed & vented to dust collector, storage limited to 5%

VΕ

PM10 Percent Control Efficiency

PM10 Cost Effectiveness (%/ton)

PM10 Incremental Cost Effectiveness (%/ton)

PM10 Cost Verified (Y/N)

PM10 Dollar Year

# Project / Permit Information

Application/Permit No.:

17625

Application Completeness

Date:

Contact Phone No.:

Contact E-Mail:

New Modification Construction/Modification: ATC Date: PTO Date: Startup Date: Technology Status: **BACT Determination** Source Test Available: Yes Source Test Results: Facility / District Information Facility Name: Kiewit Pacific Co Facility Zip Code: **Facility County:** Sacramento District Name: Sacramento Metropolitan AQMD **District Contact:** 

916-874-4800

Allan Daly

adaly@airquality.org

# **Notes**

Notes:

Report Error In Determination



# **BACT Determination Detail**

# Category

Source Category:

Concrete Batch Plant: >= 5 cubic yard per batch

SIC Code

3273

NAICS Code

32739

# **Emission Unit Information**

Continuous (12/6/52)

ivialiulaciulei.	
Туре:	
Model:	
Equipment Description:	
Capacity / Dimentions	87,450 tons/mon
Fuel Type	Natural Gas
Multiple Fuel Types	

Operating Schedule (hours/day)/(days/week)/ (weeks/year)e

Function of Equipment

Produces transit mixed concrete

# **Project / Permit Information**

Application/Permit No.:

406717

**Application Completeness** 

Date:

New

Modification

Construction/Modification:

ATC Date:

10-17-2002

PTO Date:

10-17-2002

Startup Date:

09-01-2002

Technology Status:

**BACT Determination** 

Source Test Available:

No

Source Test Results:

# Facility / District Information

Facility Name:

**Cemex Construction Materials** 

Facility Zip Code:

91761

Facility County:

Los Angeles

District Name:

South Coast AQMD

**District Contact:** 

Martin Kay

Contact Phone No.:

909-396-3115

Contact E-Mail:

mkay@aqmd.gov

## Notes

Notes:

Venting of batch plant equipment and cement and flyash storage silos to baghouses or filter vent and maintaining sufficient moisture in aggregate at transfer points to control particulate emissions

Report Error In Determination

epa.gov/rblc/index.cfm?
=Perfini Detail.PollutantInfo&Facility\_ID=26873&Process\_ID=106717&Pollutant\_ID=171&Per\_Control\_Equipment\_Id=147058updated on 10/1/2015 Technology Transfer Network

Glearing Oktobro Center Results Pollutant Information Results Pollutant Information

## **Pollutant Information**

Click on the Process Information button to see more information about the process associated with this pollutant.

Or click on the Process List button to return to the list of processes.

RBLC Home New Search

Search Results Facility Information Processist

Politiant mornation

Help **FINAL** 

**RBLC ID: NV-0047** 

Corporate/Company: 99 CIVIL ENGINEER SOUADRON OF USAF

Facility Name: NELLIS AIR FORCE BASE **Process: CONCRETE BATCH PLANT** 

Pollutant: Particulate matter.

filterable < 10  $\mu$  (FPM10)

CAS Number: PM

Pollutant Group(s): Particulate Matter (PM),

Substance Registry System: Particulate matter, filterable <

10 μ (FPM10)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: MAINTAINING A MINIMUM OF 1.5% MOISTURE CONTENT IN MATERIALS LESS

THAN 0.25 INCHES IN DIAMETER FOR THE ENTIRE PROCESS

Test Method:

Unspecified

Percent Efficiency: Compliance Verified:

81.500 No

EMISSION LIMITS:

Case-by-Case Basis: Other Applicable Requirements:

Other Case-by-Case SIP , OPERATING PERMIT

Other Factors Influence Decision:

Emission Limit 1:

0.0514 LB/T PRODUCTION

Emission Limit 2:

10,2900 LB/H

Standard Emission Limit:

0.0514 LB/T PRODUCTION

COST DATA:

Cost Verified?

Dollar Year Used in Cost Estimates:

Cost Effectiveness:

Incremental Cost Effectiveness:

0 \$/ton 0 \$/ton

Pollutant Notes:

from epa.gov/rblc/index.cfm?
=Perm Petall.PollutantInfo&Facility\_ID=26652&Process\_ID=106068&Pollutant\_ID=171&Per\_Control\_Equipment\_Id=145995updated on 10/1/2015 Technology Transfer Network

Glearne Aire Partoine O And Radiation on TNWeA (Technology Transfer Retworks rigginations of RBLC Basic Search RBLC Search Results Pollutant Information

#### **Pollutant Information**

Click on the Process Information button to see more information about the process associated with this

Or click on the Process List button to return to the list of processes.

RBLC Home New Search

Search Results | Facility Information

Process List

Pollutant Information

Help **FINAL** 

**RBLC ID: NV-0045** 

Corporate/Company: AGGREGATE INDUSTRIES

Facility Name: SLOAN QUARRY

Process: AGGREGATE/CEMENT MIXING

Pollutant: Particulate matter,

filterable < 10  $\mu$  (FPM10)

CAS Number: PM

Pollutant Group(s): Particulate Matter (PM),

Substance Registry System: Particulate matter, filterable <

10 μ (FPM10)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible:

P2/Add-on Description: ENCLOSURE

Test Method:

Unspecified

EPA/OAR Methods

All Other Methods

Percent Efficiency:

Compliance Verified:

EMISSION LIMITS:

62.000 Yes

Case-by-Case Basis:

Other Applicable Requirements:

LAER

Other Factors Influence Decision:

Emission Limit 1:

0.0038 LB/T

Emission Limit 2:

0.3800 LB/H

Standard Emission Limit:

0.0038 LB/T

COST DATA:

Cost Verified?

No

Dollar Year Used in Cost Estimates:

Cost Effectiveness:

0 \$/ton

Incremental Cost Effectiveness:

0 \$/ton

Pollutant Notes:

THE ANNUAL EMISSION LIMIT FOR THIS UNIT IS 0.29 TONS

PER YEAR.

first epa.gov/rbic/index.cfm?
=Permit Petail.PollutantInfo&Facility\_ID=26873&Process\_ID=106717&Pollutant\_ID=171&Per\_Control\_Equipment\_Id=142058updated on 10/2/2015 Technology Transfer Network

Glevante Air EPArtoine O And Radiation Control of Technology Transfer Network a rue of Annual Research Results Pollutant Information

### **Pollutant Information**

Click on the Process Information button to see more information about the process associated with this

Or click on the Process List button to return to the list of processes.

RBLO Home New Search Search Results

Facility Information Process List

Poliutant information

Help **FINAL** 

**RBLC ID: NV-0047** 

Corporate/Company: 99 CIVIL ENGINEER SQUADRON OF USAF

Facility Name: NELLIS AIR FORCE BASE Process: CONCRETE BATCH PLANT

Pollutant: Particulate matter,

filterable < 10  $\mu$  (FPM10)

CAS Number: PM

Pollutant Group(s): Particulate Matter (PM),

Substance Registry System: Particulate matter, filterable <

10 μ (FPM10)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: MAINTAINING A MINIMUM OF 1.5% MOISTURE CONTENT IN MATERIALS LESS

THAN 0.25 INCHES IN DIAMETER FOR THE ENTIRE PROCESS

Test Method:

Unspecified

EPA/OAR Methods All Other Methods

Percent Efficiency: Compliance Verified:

81,500 No

EMISSION LIMITS: Case-by-Case Basis: Other Case-by-Case

Other Applicable Requirements: Other Factors Influence Decision: No

SIP , OPERATING PERMIT

Emission Limit 1:

0.0514 LB/T PRODUCTION

Emission Limit 2:

10.2900 LB/H

Standard Emission Limit:

0.0514 LB/T PRODUCTION

COST DATA:

Cost Verified?

Dollar Year Used in Cost Estimates:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness:

0 \$/ton

Pollutant Notes:



 $http://cfpub.epa.gov/rblc/index.cfm? action = PermitDetail. ProcessInfo\& facility\_id = 26873\&PROCESS\_ID = 106717$ Last updated on 10/2/2015

#### Technology Transfer Network

Glearn Air<u>EPArtoinen Olarg wad arbot e ITTNWEA (Techhology Tenkology Center</u> RACT/BACT/LAER Clearinghouse RBLC Basic Search RBLC Search Results Process Information - Details

## **Process Information - Details**

For information about the pollutants related to this process, click on the specific pollutant in the list below.

**RBLC** Home New Search Search Results

Facility Information

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Process information

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**FINAL** 

**RBLC ID: NV-0047** 

Corporate/Company: 99 CIVIL ENGINEER SQUADRON OF USAF

Facility Name: NELLIS AIR FORCE BASE **Process:** CONCRETE BATCH PLANT

Primary Fuel: N/A

Throughput:

Process Code: 90.012

**Pollutant Information - List of Pollutants** 

Help

**Pollutant** 

**Primary** Emission Limit

Verified **Basis** 

<u>Particulate</u>

matter, filterable < 10 μ (FPM10)

0.0514 LB/T PRODUCTION

Other Caseby-Case

NO

**Process Notes:** THE PROCESS CONSISTS OF THIRTEEN (13) EMISSION UNITS INCLUDING ONE DIESEL GENERATOR. THE CONCRETE BATCH PLANT (UNIT A015) IS SELECTED TO SHOW THE BACT DETERMINATIONS. PRODUCTION FOR THE

PLANT IS LIMITED TO 200 TONS/HR AND 15,000 TONS/YR.



 $http://cfpub.epa.gov/rblc/index.cfm? action = PermitDetail. ProcessInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 106068 \\ example of the processInfo\& facility\_id = 26652 \& PROCESS\_ID = 26652 \& PROCESS\_ID$ Last updated on 10/2/2015

## Technology Transfer Network

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**Process Information - Details** 

For information about the pollutants related to this process, click on the specific pollutant in the list below.

RBIO Home

New Search

Search Results

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Process List

Process Information

Help

**FINAL** 

**RBLC ID: NV-0045** 

Corporate/Company: AGGREGATE INDUSTRIES

Facility Name: SLOAN QUARRY

Process: AGGREGATE/CEMENT MIXING

Primary Fuel: N/A

Throughput: 100.00 T/H

Process Code: 90.012

**Pollutant Information - List of Pollutants** 

Help

**Pollutant** 

**Primary Emission** Limit

**Basis Verified** 

Particulate matter,

filterable < 10 μ

(FPM10)

0.0038 LB/T LAER

YES

Process Notes: THE EMISSION UNIT (AP12) IS THE MIXER OPERATED BY AGGREGATE/CEMENT PRODUCTS. THE ANNUAL PROCESS CAPACITY IS LIMITED

TO 150,000 TONS PER YEAR.

epa.gov/rblc/index.cfm?
- Permi vetail.PollutantInfo&Facility\_ID=26652&Process\_ID=106068&Pollutant\_ID=171&Per\_Control\_Equipment\_Id=145095updated on 10/2/2015 Technology Transfer Network

Glearing Air PAroing O Ang Radiation Control of Technology Transfer Network a ride of Annie Annie Annie Record Results Pollutant Information

**Pollutant Information** 

Click on the Process Information button to see more information about the process associated with this pollutant.

Or click on the Process List button to return to the list of processes.

RBLC Home | New Search Search Results

Facility Information

Francis History

Process information

Politiant Information

Help FINAL

**RBLC ID: NV-0045** 

Corporate/Company: AGGREGATE INDUSTRIES

Facility Name: SLOAN QUARRY

Process: AGGREGATE/CEMENT MIXING

Pollutant: Particulate matter,

filterable < 10  $\mu$  (FPM10)

CAS Number: PM

Pollutant Group(s): Particulate Matter (PM),

Substance Registry System: Particulate matter, filterable <

10 μ (FPM10)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible:

P2/Add-on Description: ENCLOSURE

Test Method:

Unspecified

EPA/OAR Methods All Other Methods

Percent Efficiency:

62,000

Compliance Verified:

Yes

EMISSION LIMITS:

Case-by-Case Basis:

LAER

Other Applicable Requirements:

Other Factors Influence Decision:

Emission Limit 1:

0.0038 LB/T

Emission Limit 2:

0.3800 LB/H

Standard Emission Limit:

0.0038 LB/T

COST DATA:

Cost Verified?

No

Dollar Year Used in Cost Estimates:

Cost Effectiveness:

0 \$/ton 0 \$/ton

Incremental Cost Effectiveness: Pollutant Notes:

THE ANNUAL EMISSION LIMIT FOR THIS UNIT IS 0.29 TONS

PER YEAR.