UNDER PUBLIC REVIEW SMAQMD BACT CLEARINGHOUSE

CATEGORY: **Material Handling**

BACT Size: Minor Source **Volumetric Truck Based Concrete/Gunite Plants**

BACT Determination Number: 220	**BACT Determination Date:**

Equipment Information

Permit Number: 25938
Equipment Description: Volumetric Truck Based Concrete/Gunite Plants
Unit Size/Rating/Capacity:
Equipment Location: Triple-G-Gunite, Inc.
9200 Elder Creed 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:	Reference comment section.
	Basis:	Achieved in Practice
PM2.5	**Standard:**	
	Technology Description:	Reference comment section.
	Basis:	Achieved in Practice
CO	**Standard:**	
	Technology Description:	
	Basis:	
LEAD	**Standard:**	
	Technology Description:	
	Basis:	

Comments: T-BACT is considered to be equivalent to BACT.

PM10/PM2.5 Requirements: 1. Storage Piles adequately wetted to prevent visible emissions > 5%. 2. Enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent). 3. Loadout screw/auger served by a flexible chute that extends into the cement compartment.

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.: 220

DATE: January 24, 2019

ENGINEER: Felix Trujillo, Jr.

Category/General Equip Description: Material Handling

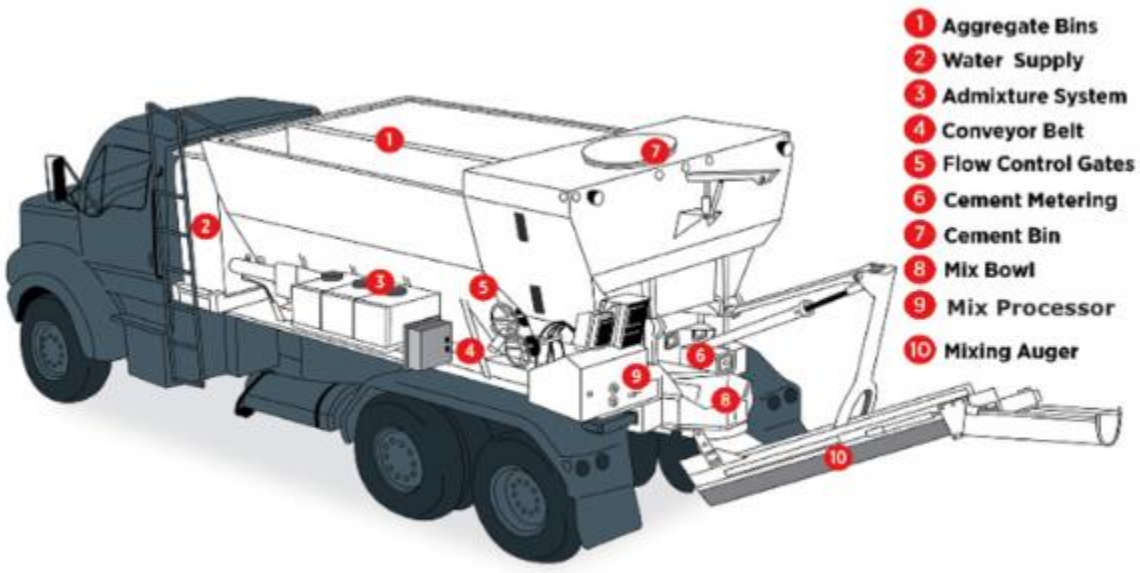
Equipment Specific Description: Volumetric Truck Based Concrete/Gunite Plants

Equipment Size/Rating: Minor Source

Previous BACT Det. No.: None

This BACT determination will be made for a stationary gunite and concrete operations including cement silo loading, cement loadout, sand/aggregate handling and stockpiles that only load volumetric trucks.

This BACT determination will apply to gunite/concrete plants that only use volumetric trucks. There is a difference in the plant setup depending on the type of truck that is being loaded. The standard concrete batch plant is setup to load concrete mix materials into ready-mix trucks. The ready-mix trucks have an opening at the end of the mixing drum that allows the material to be filled through the use of a loading chute. There is no way of directly loading the ready-mix truck with a front-end loader. The standard concrete batch plant also uses weigh batchers to measure the separate concrete mix materials to produce the ordered amount of concrete. Any concrete that is not used is considered waste. The standard concrete batch plant is also capable of producing gunite, since the only difference is that gunite does not include coarse aggregate. A volumetric truck consists of four compartments for water, sand, coarse aggregate and cement (see diagram below). Since, mixing takes place at the site, there is no waste of material. The loading of the sand and coarse aggregate is loaded via a front-end loader. A volumetric truck is not able to be loaded through the use of a standard concrete batch plant. Both of these types of plants would be able to produce gunite or concrete. Therefore, the same BACT should apply, whether they are doing gunite or concrete. Since they are handling the same materials and have the same exhaust streams. The BACT that applies to concrete batch plants that unload into ready-mix trucks should also apply to gunite operations that unload into ready-mix trucks, since they are using the same equipment. This would also be true for gunite and concrete operations that only load volumetric trucks. Therefore, this BACT determination will only apply to gunite and concrete operations that only load volumetric trucks.



This BACT was determined under the project for A/C 25938 (Triple-G-Gunite, Inc.).

BACT ANALYSIS

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

The following control technologies are currently employed as BACT for stationary gunite/concrete volumetric truck loading operations :

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

<table>
<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>SMAQMD</td><td>

BACT
Source: SMAQMD BACT Clearinghouse (http://www.airquality.org/businesses/permits-registration-programs/best-available-control-technology-(bact)) BACT No. 193 (8/14/18)

<table>
<tr><th colspan="2">Concrete Batch Plant</th></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>1. Sand and aggregate storage: outdoor storage piles adequately wetted to prevent visible emissions > 5% opacity.
2. Storage silos for cement: enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent).</td></tr>
<tr><td>PM2.5</td><td>No standard</td></tr>
<tr><td>CO</td><td>No standard</td></tr>
</table>

This air district does not include a specific guideline for gunite/concrete volumetric truck loading operations. But it does include a BACT for concrete batching operations. Only the applicable requirements that apply to the same equipment and exhaust streams as a volumetric truck loading operation will be included from this BACT guideline. This BACT includes the use of a baghouse for the truck load-out. As explained in more detail under the BACT section of the SJVAPCD section of this document, the use of a baghouse for volumetric truck loading will not be considered as achieved in practice.

RULE REQUIREMENTS:
None

</td></tr>
<tr><td>South Coast AQMD</td><td>

BACT
Source: SCAQMD BACT Guidelines for Non-Major Polluting Facilities, page 35.

<table>
<tr><th colspan="2">Concrete Batch Plant Transit Mixed</th></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>Adequate aggregate moisture</td></tr>
<tr><td>PM2.5</td><td>No standard</td></tr>
<tr><td>CO</td><td>No standard</td></tr>
</table>

The SCAQMD BACT trigger level is 1 lb/day.

</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>This air district does not include a specific guideline for gunite/concrete volumetric truck loading operations. But it does include a BACT for concrete batching operations. Only the applicable requirements that apply to the same equipment and exhaust streams as a volumetric truck loading operation will be included from this BACT guideline. This BACT includes the use of a baghouse for the truck load-out. As explained in more detail under the BACT section of the SJVAPCD section of this document, the use of a baghouse for volumetric truck loading will not be considered as achieved in practice.

<u>RULE REQUIREMENTS</u>:
None</td></tr>
<tr><td>San Diego County APCD</td><td><u>BACT</u>

Source: SDAPCD BACT Guideance Document page 3-9 (6/11)

<table>
<tr><th colspan="2">Concrete Batch Plant Transit Mixed</th></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>1. 99% efficient fabric or catridge type vent filters on silos.
2. Sand and aggregate storage piles adequately wet to maintain a minimum moisture content of 4% by weight.</td></tr>
<tr><td>PM2.5</td><td>No standard</td></tr>
<tr><td>CO</td><td>No standard</td></tr>
</table>
This air district does not include a specific guideline for gunite/concrete volumetric truck loading operations. But it does include a BACT for concrete batching operations. Only the applicable requirements that apply to the same equipment and exhaust streams as a volumetric truck loading operation will be included from this BACT guideline. This BACT includes the use of a baghouse for the truck load-out. As explained in more detail under the BACT section of the SJVAPCD section of this document, the use of a baghouse for volumetric truck loading will not be considered as achieved in practice.

<u>RULE REQUIREMENTS</u>:
None</td></tr>
</table>

<table>
<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>Bay Area AQMD</td><td>

BACT

Source:
BAAQMD BACT Guideline Document 49.1 < 5 cubic yards per batch (9/4/91)
BAAQMD BACT Guideline Document 49.2 ≥ 5 cubic yards per batch (9/4/91)

<table>
<tr><th colspan="2">Concrete Batch Plant</th></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>1. Water spray for aggregate storage piles.
2. Enclosure and venting of cement handling and storage to baghouse w/≤ 0.01 gr/dscf.</td></tr>
<tr><td>PM2.5</td><td>No standard</td></tr>
<tr><td>CO</td><td>No standard</td></tr>
</table>

This air district does not include a specific guideline for gunite/concrete volumetric truck loading operations. But it does include a BACT for concrete batching operations. Only the applicable requirements that apply to the same equipment and exhaust streams as a volumetric truck loading operation will be included from this BACT guideline. This BACT includes the use of a baghouse for the truck load-out. As explained in more detail under the BACT section of the SJVAPCD section of this document, the use of a baghouse for volumetric truck loading will not be considered as achieved in practice.

RULE REQUIREMENTS:
None

</td></tr>
</table>

<table>
<tr><th>District/Agency</th><th>Best Available Control Technology (BACT)/Requirements</th></tr>
<tr><td>San Joaquin Valley APCD</td><td>
<u>BACT</u>
Source: SJVUAPCD BACT Guideline 6.2.2 (7/31/2018)

<table>
<tr><th colspan="2">Stationary Concrete Recycling Operation</th></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>1. Outdoor storage piles adequately wetted a) to prevent visible emissions > 5% opacity, or b) with minimum moisture content of 2% for aggregate and 4% for sand.
2. Enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent).</td></tr>
<tr><td>PM2.5</td><td>No standard</td></tr>
<tr><td>CO</td><td>No standard</td></tr>
</table>

The SJVAPCD BACT trigger level is 2 lb/day.

Although, the SJVAPCD does not have a BACT determination for a gunite/concrete volumetric truck loading operations, the SJVAPCD does have a BACT for a standard concrete batch plant. But, some of the equipment/operation is the same and processes the same materials and have the same exhaust streams. The only difference for gunite being that it does not include coarse aggregate. Only the BACT requirements for the same equipment and operation will be referenced from this BACT guideline. BACT Guideline 6.2.2 (7/31/18) requires the truck loadout to be enclosed and served by a baghouse. The gunite operation does not have the structure support associated with a standard concrete batch plant used for loading ready-mix trucks. Traditional concrete batch plants include a discharge chute that is part of a support structure that allows the addition of equipment in order to be vented to a baghouse. The silo used for gunite operations are horizontal or vertical silos that discharge the cement via a 6 to 10 inch diameter auger. The auger is not designed as a support structure. Therefore, addition of a baghouse and associated equipment would require an additional support structure. The standard practice for these types of operations is to use flexible chutes/boots that extend into the cement compartment of the truck to avoid loss of the cement product. Therefore, the use of a baghouse is not achieved in practice for the truck loadout and will be addressed under the technologically feasible section of this evaluation.

<u>RULE REQUIREMENTS</u>:
None
</td></tr>
</table>

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	1. Storage piles adequately wetted to prevent visibile emissions > 5%. 2. Enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent). 3. Loadout screw/auger served by a chute/boot that extends into the cement compartment. (A)	SMAQMD, SJVAPCD SMAQMD, SJVAPCD, BAAQMD, SDCAPCD Applicant
PM2.5	No standard	
CO	No Standard	

(A) The use of a flexible chute/boot is common practice for these types of operations as it avoids loss of the cement product.

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	Not applicable
NOx	Not applicable
SOx	Not applicable
PM10	Loadout vented to a baghouse
PM2.5	Same as PM10
CO	Not applicable

Technologically Feasible Analysis Summary

The District's current BACT determination (No. 193) for concrete batch plants would apply to operations that load ready-mix trucks or include a central mixer. BACT No. 193 includes requirements for weight batchers and loadout. The weigh batchers are required to be served by a baghouse. The central mixer and truck loadout are also required to be served by a

baghouse. As explained in the introductory section of this determination, there is a difference in plant setup between operations that load ready-mix trucks and volumetric trucks. A volumetric truck cannot be loaded using the setup of a standard concrete batching operation. There are no weigh batchers associated with the loading of the volumetric trucks. As the loading of the sand and aggregate are done throught the use of a front-end loader. The loading of the cement into the truck's cement compartment is done through an auger (6" or 10" diameter) that includes a flexible chute/boot that extends into the cement compartment. The loading of a standard ready-mix truck is done through a loading chute that is gravity fed into the ready-mix truck's drum entrance. The standard ready mix loadout includes a support structure that allows the materials to be gravity fed into the truck's mixing drum. The support structure also allows the addition of ducting in order to vent the loadout's particulate emissions to a baghouse. The cement silos that serve the volumentric truck loading operations, only include an auger that loads the cement into the truck's cement compartment. The loading auger is not a support structure. To include the use of a baghouse for the loading of a volumetric truck would require a redesign and reconfiguration of the operation. Therefore, the use of a baghouse for the loadout will be not be technologically feasible.

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:

Minor Source BACT for a stationary concrete/gunite volumetric truck loading operation is the following:

BACT FOR STATIONARY VOLUMETRIC TRUCK BASED CONCRETE/GUNITE PLANTS		
Pollutant	**Standard**	**Source**
VOC	NA	NA
NOx	NA	NA
SOx	NA	NA
PM10	1. Storage piles adequately wetted to prevent visible emissions > 5%. 2. Enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent). 3. Loadout screw/auger served by a flexible chute that extends into the cement compartment.	SMAQMD, SJVAPCD SMAQMD, SJVAPCD, BAAQMD, SDCAPD Applicant
PM2.5	Same as PM10	Same as PM10
CO	NA	NA

D. SELECTION OF T-BACT:

Toxics are in the form of PM. 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.

APPROVED BY: _____ **DATE:** _____

Attachment A

Review of BACT Determination

ACTIVE SMAQMD BACT CLEARINGHOUSE

CATEGORY: **CONCRETE BATCH PLANT**

BACT Size: Greater than or equal to 5 cubic yards per **Concrete Batch Plant**

BACT Determination Number:	193	**BACT Determination Date:**	**8/14/2018**

Equipment Information

Permit Number: N/A -- Generic BACT Determination
Equipment Description: Concrete Batch Plant
Unit Size/Rating/Capacity: Greater than or equal to 5 cubic yards per batch
Equipment Location:

BACT Determination Information

ROCs	**Standard:**	No Stadard
	Technology Description:	
	Basis:	Achieved in Practice
NOx	**Standard:**	No Standard
	Technology Description:	
	Basis:	Achieved in Practice
SOx	**Standard:**	No Standard
	Technology Description:	
	Basis:	Achieved in Practice
PM10	**Standard:**	No Standard
	Technology Description:	See page 8 of 8 of BACT Determination 193
	Basis:	Achieved in Practice
PM2.5	**Standard:**	Equivalent to PM10 controls
	Technology Description:	See page 8 of 8 of Bact Determination 193
	Basis:	Achieved in Practice
CO	**Standard:**	No Standard
	Technology Description:	
	Basis:	Achieved in Practice
LEAD	**Standard:**	No Standard
	Technology Description:	
	Basis:	Achieved in Practice

Comments: The Technology description is too long to fit in the comment section. Please see page 8 of 8 of Bact Determination 193 for the control requirements of PM10/PM2.5.
Public notice comment period ended on 8/13/18.

District Contact:

Printed: 4/8/2019

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	1) Sand and Aggregate storage: outdoor storage piles adequately wetted to prevent visible emissions > 5% opacity 2) Sand and aggregate handling (all transfer points): water sprays on all transfer points 3) Sand and aggregate weigh batcher: material adequately wetted to prevent visible emissions > 5% opacity 4) Storage silos for cement, flyash and other supplements: enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent) 5) Cement weigh batcher: enclosed weigh batcher vented to a control device with 99% efficiency (baghouse or equivalent) 6) Transit-mixed truck loading: loading operation enclosed by a flexible shroud which seals to the truck and is vented to a control device with 99% efficiency (baghouse or equivalent) 7) Central mixer loading: Enclosed mixer vented to a control device with 99% efficiency (baghouse or equivalent)	SJVAPCD
PM2.5 (A)	Equivalent to PM10 control standards	SMAQMD
CO	No Standard	

(A) The control of PM2.5 is considered equivalent to the control of PM10.

D. SELECTION OF T-BACT:

Toxics are in the form of PM. 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:** 7-11-18

APPROVED BY: _____ **DATE:** 7/11/18

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 6.2.2*

Last Update: 07/31/2018

Concrete Batch Plant

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	1) SAND/AGGREGATE STORAGE: Outdoor storage piles adequately wetted a) to prevent vislble@ emissions > 5% opacity, or b) with minimum moisture content of 2% for aggregate and 4% for sand 2) SAND/AGGREGATE HANDLING (ALL TRANSFER POINTS): Water sprays on all transfer points to prevent visible emissions > 5% opacity 3) SAND/AGGREGATE WEIGH BATCHER: Material adequately wetted to prevent visible emissions > 5% opacity 4) STORAGE SILOS for CEMENT, FLYASH and OTHER SUPPLEMENTS: Enclosed silo vented to a control device with 99% efficiency (baghouse, bin vent or equivalent) 5) CEMENT/FLYASH/SUPPLEMENTS WEIGH BATCHER: Enclosed weigh batcher vented to a control device with 99% efficiency (baghouse or equivalent) 6) TRANSIT-MIXED TRUCK LOADING: Loading operation enclosed by a flexible shroud which seals to the truck and is vented to a control device with 99% efficiency (baghouse or equivalent) 7) CENTRAL MIXER LOADING: a) < 5 yd3 batch capacity: enclosed mixer with water sprays, b) > or = 5 yd3 batch capacity: enclosed mixer vented to a control device with 99% efficiency	1) SAND/AGGREGATE STORAGE: Enclosed storage (building, silo, or equivalent) vented to a control device with 99% control efficiency (baghouse or equivalent) 2) CENTRAL MIXER LOADING: < 5 cubic yard batch capacity: enclosed mixer vented to a control device with 99% control efficiency (baghouse or equivalent)	

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

10-20-2000 Rev. 0

Equipment or Process: Concrete Batch Plant

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

* 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*
		Document #:	*49.1*
Class:	*< 5 cubic yards per batch*	Date:	*09/04/91*

Determination

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. 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*
CO	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
PM_{10}	1. *n/d* 2. *Water spray for aggregate handling, agregate storage piles, and site road surfaces; and Enclosure and venting of cement handling and storage to baghouse w/ ≤0.01 gr/dscf*[a]	1. *n/d* 2. *BAAQMD Approved Design and Operation*[a]
NPOC	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*

References

a. BAAQMD

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

Source Category

Source:	*Concrete Batch Plants*	Revision:	*1*
		Document #:	*49.2*
Class:	*≥ 5 Cubic yards per batch*	Date:	*09/04/91*

Determination

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. 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*
CO	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
PM_{10}	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*[a,b] 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*[a]	1. *BAAQMD Approved Design and Operation*[a] 2. *BAAQMD Approved Design and Operation*[a]
NPOC	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*

References

a. BAAQMD
b. BAAQMD A #4770

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 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.

* The BACT emission rate limit is based on TSP which is used as a surrogate for PM10.