



**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO.66684**

**Coffman Specialties, Inc.**

**I. INTRODUCTION**

This Class II Synthetic Minor permit is issued to Coffman Specialties, Inc., the Permittee, for the continued operation of a concrete batch plant located in various sites in the State of Arizona.

**A. Company Information**

1. Facility Name: Concrete Batch Plant
2. Facility Location: Varies (Portable)
3. Mailing Address: 9865 Via Excelencia, Suite 200  
San Diego, CA 92126
4. Initial Address: 14152 N Attaway Road  
Coolidge, Pinal County, AZ 85128

**B. Attainment Classification**

The source was initially located in an area classified to be in non-attainment for PM10 and in attainment/unclassified for all other criteria pollutants.

**II. PROCESS DESCRIPTION**

**A.** The facility operates a portable concrete batch plant capable of producing 150 cubic yards per hour of concrete. Finished aggregate is mixed with cement powder, water and additives to produce ready mix concrete. The ready mix concrete is weighed and fed into trucks for delivery.

**B. Control Devices**

A baghouse will be used to control particulate matter emissions from the loading and unloading of the silo and drum mixer. Particulate matter emissions from storage piles, roadways and other various sources will be controlled by water trucks, chemical dust suppressants or equivalent methods as needed.



### III. EMISSIONS

**Table 1: Potential Emissions**

Pollutant	Emissions (tons per year)
PM	7.64
PM <sub>10</sub>	3.77
PM <sub>2.5</sub>	1.31
NO <sub>x</sub>	36.07
CO	11.25
SO <sub>2</sub>	1.27
VOC	1.90
HAPs	0.04
GHGs (CO <sub>2</sub> e)	4937

### IV. APPLICABLE REGULATIONS

Table 2 displays the applicable requirements for each permitted piece of equipment along with an explanation of why the requirement is applicable.

**Table 2: Verification of Applicable Regulations**

Unit	Control Device	Rule	Discussion
Concrete Batch Plant	Particulate matter emissions from the silo are controlled by a baghouse.  Fugitive emissions are controlled by water spray and other reasonable precautions.	R18-2-702.B R18-2-723	Standards of performance for concrete batch plants and fugitive dust sources.
		<b><u>Maricopa County Rule (M.C.R.)</u></b> Rule 300 Rule 316 Rule 320	Standards for visible emissions and opacity. Limits for particulate matter emissions from any nonmetallic mining operating or rock product processing plant. Limits for odors and other gaseous air contaminants.
		<b><u>Pima County Code</u></b> SIP Rule 343 §§17.16.040 §§17.16.380	Standards and applicability for opacity limitations. Standards of performance for concrete batch plants.
		<b><u>Pinal County Code</u></b> §4-2-040 §4-2-050	Stationary source performance standards for gravel or crushed stone processing plant and concrete batch plants.



Unit	Control Device	Rule	Discussion
Internal Combustion Engines	N/A	A.A.C. R18-2-306.A A.A.C. R18-2-331.A.3.c  40 CFR 60 Subpart III	Standards for Diesel-Fired Internal Combustion Engines manufactured after April 1, 2006
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
		M.C.R Rule 312 §410	Limits for particulate emissions from abrasive blasting operations.
		Pinal County Code §5-4-140	The facility is subject to Pinal County Code §5.4.140 but regulations were streamlined because A.A.C. R18-2-726 and A.A.C. R18-2-702.B are equivalent.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
		M.C.R. Rule 315	Limits for particulate matter emissions from spray coating operations.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile sources	None	A.A.C. R18-2-801	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.
		M.C.R Rule 15	Maricopa County mobile source requirements.

**V. PREVIOUS PERMIT CONDITIONS**

Permit No. 52974 was issued on January 28, 2013, for the continued operation of this facility. Table 3 below illustrates if a section in Permit No. 52974 was revised or deleted.

**Table 3: Permit No. 66684**

Section No.	Determination		Comments
	Revised	Delete	
Att. A.	X		General Provisions - Revised to represent most recent template language.
Att. B. I	X		Facility-Wide Requirements – Updated opacity requirements to include alternative monitoring method(s).
Att. B. II	X		Concrete Batch Plant Requirements – Revised to include daily production limit.
Att. B. III	X		Compression Ignition Engine Requirements – Revised to account for different emission standards
Att. B. IV	X		Fugitive Dust Requirements – Revised to represent most recent template language.



## **VI. MONITORING REQUIREMENTS**

### **A. Facility Wide**

1. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified or Alternative ALT-082 observer perform monthly surveys of visible emission from process stack sources and fugitive dust sources. The observer is required to conduct a 6-minute observation if the results of the initial survey appear on an instantaneous basis to exceed the applicable standard.
2. The Permittee is required to submit reports of all recordkeeping, monitoring and maintenance required by the permit with the annual compliance certification.
3. The Permittee is required to maintain records of the Operation and Maintenance Plan or Manufacturer's specifications for all equipment onsite.

### **B. Concrete Batch Plant**

1. The Permittee is required to maintain records of concrete produced per day.
2. The Permittee is required to maintain records of daily operation of equipment in hours.
3. The Permittee is required to show compliance with the opacity standards in the concrete batch plant section per the facility wide requirements. The observations are required on a weekly basis when operating in Maricopa County.

### **C. Compression Ignition Engines**

1. The Permittee is required to keep records of fuel supplier specifications.
2. The Permittee is required to maintain records of engine operation in hours per day.
3. The Permittee is required to maintain a copy of engine certifications or other documentation demonstrating that each engine complies with the applicable standards in the permit.
4. If a diesel particulate filter is installed, the Permittee is required to install a backpressure monitor to notify the operator when the high backpressure limit of the engine is approached.
5. The Permittee is required to install a non-resettable hour meter on the compression ignition engines.

### **D. Fugitive Dust**

1. The Permittee is required to keep record of the dates and types of dust control measures employed.
2. The Permittee is required to show compliance with the opacity standards by having a certified observer perform weekly surveys of visible emission from fugitive dust sources. The observer is required to conduct a 6-minute Method 9 or ALT-082 observation if the results of the initial survey appear on an instantaneous basis to



exceed the applicable standard.

3. The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.
4. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.
5. The Permittee is required to adhere to all fugitive dust requirements

**E. Periodic Activities**

1. The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.
2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

**F. Mobile Sources**

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

**VII. COMPLIANCE HISTORY**

There has been one compliance certification submittal and no compliance violations during the previous permit term.

**VIII. AIR DISPERSION MODELING ANALYSIS**

The AERMOD model was used to complete an air dispersion modeling analysis for CO, SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Table 3 below shows the combined modeling results in comparison to the National Ambient Air Quality Standards (NAAQS) and demonstrate that all pollutants are below the standards based on voluntary operating limits of 12 hours per day and 5 days a week for the concrete batch plant.

**Table 3. NAAQS Modeling Analysis Results**

Pollutant	Averaging Period	Modeled Concentrations (µg/m <sup>3</sup> )	Background Concentration (µg/m <sup>3</sup> )	Modeled + Background Concentration (µg/m <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )	% of NAAQS	Exceed NAAQS?
PM <sub>10</sub>	24-hr	35.92	93	128.92	150	86.0%	No
PM <sub>2.5</sub>	Annual	3.39	8.38	11.77	15	78.5%	No
	24-hr	15.78	18	33.78	35	93.5%	No



Pollutant	Averaging Period	Modeled Concentrations (µg/m <sup>3</sup> )	Background Concentration (µg/m <sup>3</sup> )	Modeled + Background Concentration (µg/m <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )	% of NAAQS	Exceed NAAQS?
SO <sub>2</sub>	3-hr	0.376	369	0.434	196	6%	No
	1-hr	0.434	*	369.376	1,300	6%	No
NO <sub>x</sub>	Annual	5.2	30.58	35.78	100	33.9%	No
CO	8-hr	58.45	2,512	2,549.70	10,000	6.4%	No
	1-hr	37.70	5,389	5,447.45	40,000	54.5%	No

Note: Detailed information about the modeling analysis, such as modeling methodology and background concentrations can be found in the 2012 permit application.

**IX. LIST OF ABBREVIATIONS**

- A.A.C. .... Arizona Administrative Code
- ADEQ ..... Arizona Department of Environmental Quality
- CFR ..... Code of Federal Regulations
- CO ..... Carbon Monoxide
- HAPS ..... Hazardous Air Pollutants
- MSDS ..... Material Safety Data Sheet
- NAAQS ..... National Ambient Air Quality Standards
- NESHAP ..... National Emission Standard for Hazardous Air Pollutants
- NO<sub>x</sub> ..... Nitrogen Oxide
- P.C.C. .... Pima County Code
- PM ..... Particulate Matter
- PM<sub>2.5</sub> ..... Particulate Matter Nominally less than 2.5 Micrometers
- PM<sub>10</sub> ..... Particulate Matter Nominally less than 10 Micrometers
- PTE ..... Potential-to-Emit
- SO<sub>2</sub> ..... Sulfur Dioxide
- TPY ..... Tons per Year
- VOC ..... Volatile Organic Compound