

**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT No. 96548**

**I. INTRODUCTION**

This Class II Renewal permit is for the continued operation of Sundt Construction, Inc.'s Erie Steamer portable concrete batch plant. Permit No. 96548 renews and supersedes Permit No. 82294. A Class II permit is required because the uncontrolled emissions from this facility are greater than the significance levels identified in the Arizona Administrative Code (A.A.C.) R18-2-101.131. Therefore, a Class II permit is required for this facility in accordance with A.A.C. R18-2-302.B.2.a.

**A. Company Information**

Facility Name: Erie Steamer Concrete Batch Plant

Mailing Address: Sundt Construction, Inc.  
2620 South 55th Street  
Tempe, AZ 85282

Facility Location: Portable

**B. Attainment Classification**

The portable facility has the potential to operate throughout the entire State of Arizona. It is not anticipated to cause non-attainment for any county as it does not have the potential to emit ozone.

**II. PROCESS DESCRIPTION**

**A. Process Equipment**

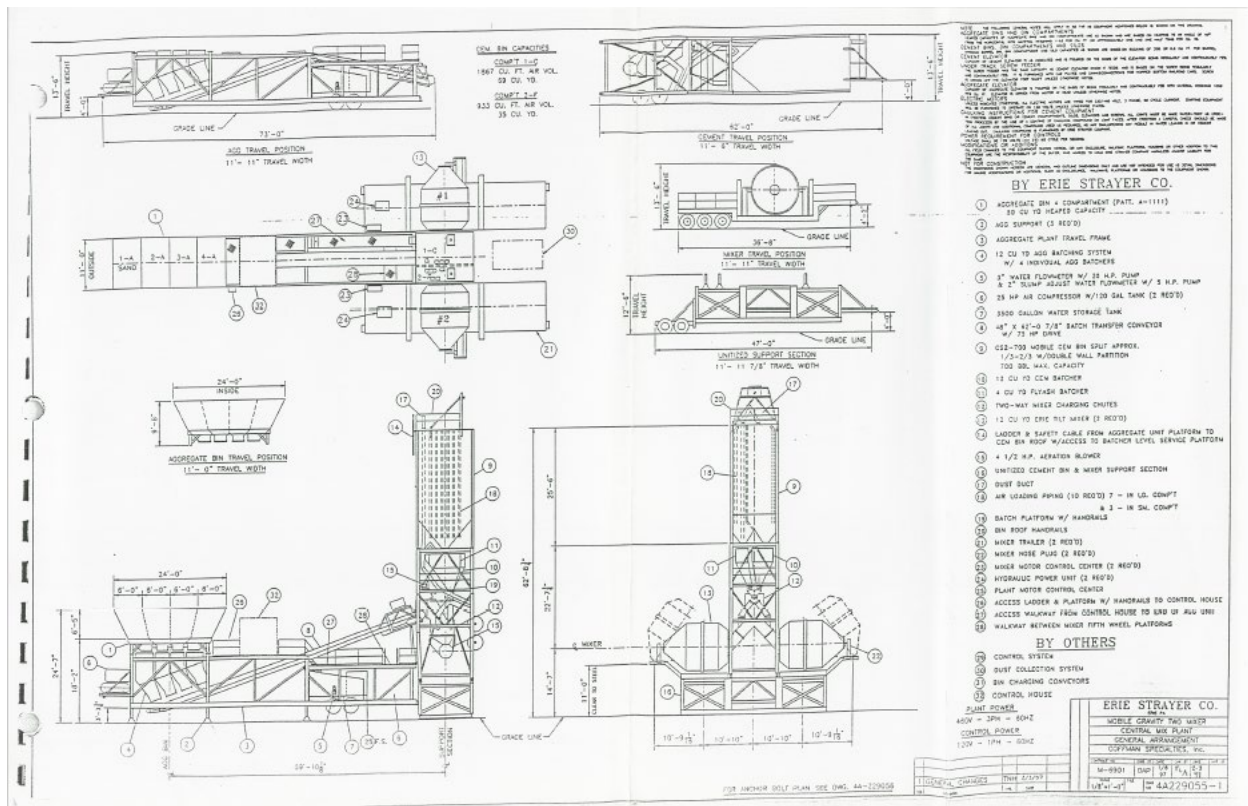
Concrete is composed of water, cement, sand (fine aggregate), and coarse aggregate. Coarse aggregate may consist of gravel or crushed stone. Concrete batching plants store, convey, measure, and discharge these constituents into trucks for transport to a job site.

The aggregate material is delivered by front-end loader or conveyor to the concrete batch plant. The cement is transferred to elevated storage silos pneumatically. The sand and coarse aggregate are transferred to elevated bins by front-end loader and belt conveyor. From these elevated bins, the constituents are fed by gravity or conveyor to weigh hoppers, which combine the proper amount of each material. Sand, aggregate, cement, and water are all gravity fed from the weigh hopper into mixer trucks. The concrete is mixed on the way to the site where the concrete is to be poured.

**B. Control Devices**

A baghouse is installed on the concrete batch plant to control the emissions of particulate matter from the facility.

**C. Portable Facility Layout**



### III. COMPLIANCE HISTORY

The ADEQ has reviewed four annual compliance certifications. No excess emissions or permit deviations were reported, so no informal enforcements were issued. No inspections were conducted during the previous permit term. No performance tests were conducted.

### IV. EMISSIONS

Potential to Emit was calculated using emission factors from tables located in EPA's Compilation of Air Emissions Factors (AP-42) and manufacturers' specifications for equipment. The emissions are calculated based on the voluntary operational limits on the facility. The concrete batch plant will not operate more than 12 hours a day, and the main generator will not operate more than 13 hours a day.

The facility has a potential-to-emit (PTE) more than the significant thresholds of PM<sub>2.5</sub>.

**Table 1: Potential to Emit (tpy)**

Pollutant	PTE	Significant Thresholds	Minor NSR Triggered?
NO <sub>x</sub>	7.75	40	No
PM <sub>10</sub>	4.94	15	No
PM <sub>2.5</sub>	15.33	10	No
CO	0.55	100	No
SO <sub>2</sub>	0.03	40	No

**V. VOLUNTARILY ACCEPTED EMISSION LIMITATIONS AND STANDARDS**

The permit contains the following voluntary emission limitations and standards:

**A. Main Generator**

The facility has accepted a voluntary operational limit of 13 hours per calendar day for their main generator to reduce emissions and maintain Class II permit classification and to negate the need for a minor New Source Review (NSR).

**VI. APPLICABLE REGULATIONS**

Table 3 identifies applicable regulations and verification as to why that standard applies. The table also contains a discussion of any regulations the emission unit is exempt from.

**Table 2: Applicable Regulations**

Unit & year	Control Device	Rule	Discussion
Concrete Batch Plant	Baghouse	A.A.C R18-2-702.B A.A.C R18-2-723	These standards apply to concrete batch plants.
Non-Emergency Compression Ignition Generator	Particulate Filter	40 Code of Federal Regulations Part 60, Subpart III	This standard is applicable to compression ignition internal combustion engines that commence construction after July 11, 2005, and where the ICE is manufactured after April 1, 2006.
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.
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.

Unit & year	Control Device	Rule	Discussion
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.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	These standards are applicable to any spray painting operation.
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.

**Table 3: Maricopa County Applicable Regulations**

Unit	Control Device	Rule	Discussion
Facility Wide Requirements	None	Maricopa County Rule 300 §301 Maricopa County Rule 320 §300 Maricopa County Rule 300 §302 Maricopa County Rule 300 §303	General Opacity Limitation  General Odor And Gaseous Air Contaminant Limitations
Concrete Batch Plant and Fugitive Dust	Baghouse, Water Trucks, Dust Suppressants	Maricopa County Rule 316	These regulations apply to Nonmetallic Mineral Processing Plants located in Maricopa County.
Non-Emergency Compression Ignition Generator	Particulate Filter	Maricopa County Rule 324	These regulations apply to stationary internal combustion engines located in Maricopa County.
Abrasive Blasting	N/A	Maricopa County Rule 312	These regulations apply to abrasive blasting in Maricopa County.
Spray Painting	N/A	Maricopa County Rule 315	These regulations apply to spray painting in Maricopa County.

**Table 4: Pima County Applicable Regulations**

Unit	Control Device	Rule	Discussion
Concrete Batch Plant	Baghouse	P.C.C. §§17.16.380	This regulation applies to concrete batch plants located in Pima County.

Unit	Control Device	Rule	Discussion
Fugitive Dust	Water Trucks, Dust Suppressants	P.C.C. §§17.16.60 P.C.C. §§17.16.70 P.C.C. §§17.16.80 P.C.C. §§17.16.90 P.C.C. §§17.16.100 P.C.C. §§17.16.110 P.C.C. §§17.16.120	These regulations apply to existing and new nonpoint sources located in Pima County.
General Requirements	N/A	P.C.C. §§17.16.10 P.C.C. §§17.16.40 P.C.C. §§17.16.50 Pima Sip Rule 343	These regulations apply to all sources in Pima County.

**Table 5: Pinal County Applicable Regulations**

Unit	Control Device	Rule	Discussion
Facility Wide Requirements	Baghouse, Water Trucks, Dust Suppressants	Pinal Code §4-2-040 Pinal Code §4-2-050	The regulations listed apply to miscellaneous and unclassified sources in Pinal County

**VII. PREVIOUS PERMIT REVISIONS AND CONDITIONS**

**A. Previous Permit Revisions**

Table 4 provides a description of the permit revisions made to Permit No. 66622 during the previous permit term.

**Table 3: Permit Revisions to Permit No. 66622**

Permit Revision No.	Permit Revision Type	Brief Description
82294	Minor Permit Revision	This minor permit revision increased the voluntary operating limitation on the portable concrete batch plant's main generator from 12.5 hours a day to 13 hours a day.

**VIII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS**

Table 6 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the Permittee is required to demonstrate compliance with the emission limits in the permit.

**Table 4: Permit No. 96548**

<b>Emission Unit</b>	<b>Pollutant</b>	<b>Emission Limit</b>	<b>Monitoring Requirements</b>	<b>Recordkeeping Requirements</b>	<b>Reporting Requirements</b>
Concrete Batch Plant	PM	20% opacity in areas of nonattainment, 40% otherwise	Conduct monthly opacity monitoring of visible emissions from the concrete batch plant.	Records of daily concrete production.	Report all 6-minute periods which the opacity exceeded 15%.
Engines (subject to state regulations)	PM	20% opacity in areas of nonattainment, 40% otherwise	Conduct periodic opacity monitoring on a monthly basis.	Maintain records of the lower heating value of the fuel.	Report all 6-minute periods which the opacity exceeded 15%.
	SO <sub>2</sub>	1.0 lb/MMBtu		Record the daily sulfur content of the fuel used in the engines.	Report to the Director any daily period which the sulfur content exceeds 0.8%.
Fugitive Dust	PM	40% Opacity	A Method 9 observer is required to conduct a monthly survey of visible emissions.	Record of the dates and types of dust control measures employed, and if applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions.	

Abrasive Blasting	PM	20% Opacity		Record the date, duration and pollution control measures of any abrasive blasting project.	
Spray Painting	VOC	20% Opacity Control 96% of the overspray		Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.	
Demolition/ Renovation	Asbestos			Maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents	

**IX.**

**LIST OF ABBREVIATIONS**

- A.A.C. .... Arizona Administrative Code
- ADEQ ..... Arizona Department of Environmental Quality
- CO ..... Carbon Monoxide
- EPA ..... Environmental Protection Agency
- HAP ..... Hazardous Air Pollutant
- HHV ..... Higher Heating Value
- hp ..... Horsepower
- hr ..... Hour
- NO<sub>x</sub> ..... Nitrogen Oxides
- NSPS ..... New Source Performance Standards
- PM ..... Particulate Matter

PM10..... Particulate Matter less than 10 µm nominal aerodynamic diameter  
PM2.5..... Particulate Matter less than 2.5 µm nominal aerodynamic diameter  
PTE ..... Potential to Emit  
SO<sub>2</sub>..... Sulfur Dioxide  
TPY ..... Tons per Year  
VOC..... Volatile Organic Compound  
yr..... Year