

**Statement of Basis
Concrete Batch Plant General Permit**

**Permit to Construct No. P-2020.0032
Project ID 62496**

**Americrete Ready-Mix Concrete dba G&B Redi Mix - 00384
Portable**

Facility ID 777-00384

Final

**November 18, 2020
Zach Pierce
Permit Writer**

A handwritten signature in blue ink, consisting of the letters 'ZP' in a stylized, cursive font.

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O ₂	oxygen
PC	permit condition
PERF	Portable Equipment Relocation Form
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
RICE	reciprocating internal combustion engines
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd ³	cubic yards
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Americrete Ready-Mix Concrete dba G&B Redi Mix – 00384 is a portable truck mix concrete batch plant consisting of aggregate stockpiles, a cement storage silo, a cement supplement (fly ash) storage silo, a weigh batcher, and conveyors. The facility combines aggregate, sand, fly ash, and cement and then transfers the mixture into a truck mixer, along with water, for in-transit mixing of the concrete. In addition, water heater(s) are used to heat the water in cold weather prior to use for the mixing of concrete.

The concrete batch plant is fed a mixture of aggregates from imported aggregate.

The process begins with materials being fed via front end loader to a compartment bin feeder system and then dispensed in metered proportions to a collecting conveyor. The material passes over a scalping screen before being conveyed into the truck mixer.

Particulate emissions are controlled by maintaining the moisture content at 1.5% by weight for all ¼ in and smaller aggregate feed materials via water sprays.

The Applicant has concrete production rate throughput limits of 120 cubic yards per hour, 1,440 cubic yards per day, and 500,000 cubic yards per year.

Line power is used exclusively at the facility. Therefore, no IC engines powering electrical generators were included in the analysis.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

August 7, 2006 P-060019, Initial Concrete Batch Plant Permit, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This PTC is for a revision of an existing PTC.

The applicant has proposed to revise existing permit P-060019 by changing out the dust collection system. This permit will be issued as P-2020.0032 in alignment with the current PTC naming convention.

Application Chronology

August 24, 2020	DEQ received an application and an application and processing fee.
September 23, 2020	DEQ determined that the application was complete.
October 28, 2020	DEQ made available the draft permit and statement of basis for peer and regional office review.
November 2, 2020	DEQ made available the draft permit and statement of basis for applicant review.
November 12, 2020	DEQ received the permit processing fee.
November 18, 2020	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
Materials Handling	<p><u>Material Transfer Points:</u> Materials handling Concrete aggregate transfers Truck unloading of aggregate Aggregate conveyor transfers Aggregate handling</p>	Maintaining the moisture content in ¼” or smaller aggregate material at 1.5% by weight, using water sprays, using shrouds, or other emissions controls	N/A
Concrete Mixer	<p><u>Concrete Batch Plant – Truck Mix:</u> Manufacturer: Stephens Manufacturing Company Model: Thoroughbred Portable Batch Manufacture Date: 2005 Max. production: 120 yd³/hr, 1,440 yd³/day, and 500,000 yd³/yr</p> <p><u>Cement Storage Silo:</u> Storage capacity: 118 tons Bin Vent Filter/Baghouse Manufacturer^(a): Stephens Model: SOS-1020x2</p> <p><u>Fly Ash Storage Silo:</u> Storage capacity: 59 tons Bin Vent Filter/Baghouse Manufacturer^(a): Stephens Model: SOS-1020x2</p>	<p><u>Weigh Batch Baghouse:</u> Manufacturer: Stephens Mfg. Co. Inc. Model: SV-20 Vent PM₁₀/PM_{2.5} control efficiency: 99.96%</p> <p><u>Cement Storage Silo Bin Vent Filter/Baghouse:</u> Manufacturer: Stephens Model: SOS-1020x2 PM₁₀/PM_{2.5} control efficiency: 99.95%</p> <p><u>Fly Ash Storage Silo Bin Vent Filter/Baghouse:</u> Manufacturer: Stephens Model: SOS-1020x2 PM₁₀/PM_{2.5} control efficiency: 99.95%</p> <p><u>Truck Load-out:</u> Control: Shroud with water ring spray PM₁₀/PM_{2.5} control efficiency: 80%</p> <p><u>Material Transfer Points:</u> Control: Water sprays PM₁₀/PM_{2.5} control efficiency: 75%</p>	<p><u>Weigh Batch Baghouse Exhaust:</u> Exit height: 27.5 ft Exit dimensions: 10 in x 13 in Exit flow rate: 500 acfm</p> <p><u>Cement Storage Silo Bin Vent Filter/Baghouse Exhaust:</u> Exit height: 68.83 ft Exit dimensions: 52.75 in x 36.5 in Exit flow rate: 4500 acfm</p> <p><u>Fly Ash Storage Silo Bin Vent Filter/Baghouse Exhaust:</u> Exit height: 68.83 ft Exit dimensions: 52.75 in x 36.5 in Exit flow rate: 4500 acfm</p>
Boiler	<p><u>Boiler:</u> Manufacturer: Pearson Heating Systems Inc. Model: P-10-20W Manufacture Date: 2006 Heat input rating: 2.8 MMBtu/hr Fuel: LPG/Propane</p>	N/A	<p><u>Boiler Exhaust:</u> Exit height: 9 ft Exit diameter: 10 in</p>

- a) Both the storage silo baghouse and supplement storage silo flyash baghouse are considered process equipment and therefore there is no associated control efficiency. Controlled PM₁₀ emission factors were used when determining PTE and for modeling purposes.

Emissions Inventories

This permitting action did not result in a change in emissions. For the technical analysis and emissions inventory please see the statement of basis for PTC No. P-060019 issued August 7, 2006 (2011AAG3229).

Ambient Air Quality Impact Analyses

An ambient air quality impact analysis is not required because this permitting action does not result in an emissions increase.

REGULATORY ANALYSIS

This permitting action did not result in a change in regulatory analysis. For the current regulatory analysis please see the statement of basis for PTC No. P-060019 issued August 7, 2006 (2011AAG3229).

Permit Conditions Review

This section describes the permit conditions for this modified permit that have been added, revised, modified or deleted as a result of this permitting action.

Permit Conditions 1.1 – 1.3, Permit Scope

These permit conditions were revised to reflect purpose of changing the dust collection system.

Table 1.1, Regulated Sources

This table was revised to reflect the equipment used at the facility with the change out of the dust collection system.

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

APPENDIX A – FACILITY DRAFT COMMENTS

On November 12, 2020, the facility stated they had no comments on the draft permit.

APPENDIX B – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

Instructions:

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Americrete Ready-Mix Concrete dba
Address: 6701 East Flamingo Ave
City: Nampa
State: ID
Zip Code: 83687
Facility Contact: Mike O'Leary
Title: Production Manager
AIRS No.: 777-00384

- Y** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- N** Did this permit require engineering analysis? Y/N
- N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	0	0.0
SO ₂	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
Total:	0.0	0	0.0
Fee Due	\$ 500.00		

Comments: