

# Air Quality Standard Permit for Concrete Batch Plants

Effective Date: January 24, 2024

## (1) Applicability

- (A) This air quality standard permit authorizes concrete batch plant facilities that meet all of the conditions listed in sections (1) through (7) and sections (8) or (9). Concrete batch plants that are authorized as temporary operations shall also comply with section (10) for relocation requirements. If a concrete batch plant operates using sections (8) or (9) of this standard permit and operational changes are proposed that would change the applicable section, the owner or operator shall reregister for the concrete batch plant standard permit prior to operating the change.
- (B) This standard permit does not authorize emission increases of any air contaminant that is specifically prohibited by a condition or conditions in any permit issued under Title 30 Texas Administrative Code (30 TAC) Chapter 116, Control of Air Pollution by Permits for New Construction or Modification, at the site.
- (C) This standard permit does not relieve the owner or operator from complying with any other applicable provision of the Texas Health and Safety Code (THSC), Texas Water Code, rules of the Texas Commission on Environmental Quality (TCEQ), or any additional state or federal regulations.
- (D) Facilities that meet the conditions of this standard permit do not have to meet the emissions and distance limitations in 30 TAC § 116.610(a)(1).

## (2) Definitions

- (A) Auxiliary storage tank – Storage containers used to hold raw materials for use in the batching process not including petroleum products and fuel storage tanks.
- (B) Cohesive hard surface - An in-plant road surface preparation including, but not limited to, paving with concrete, asphalt, or other similar surface preparation where the road surface remains intact during vehicle and equipment use and is capable of being cleaned. Cleaning mechanisms may include water washing, sweeping, or vacuuming.
- (C) Concrete batch plant - For the concrete batch plant standard permit, it is a plant that consists of a concrete batch facility and associated abatement equipment, including, but not limited to: material storage silos, aggregate storage bins, auxiliary storage tanks, conveyors, weigh hoppers, and a mixer. Concrete batch plants can add water, Portland cement, and aggregates into a delivery truck, or the concrete may be prepared in a central mix drum and transferred to a delivery truck for transport. This definition does not include operations that meet the requirements of 30 TAC § 106.141, Batch Mixer or 30 TAC § 106.146, Soil Stabilization Plants.
- (D) Central mix plant (also known as wet mix) – A concrete batch plant where sand, aggregate, cement, cement supplement, and water are all combined and mixed in a central mix drum before being transferred to a transport truck.

- (E) Dust suppressing fencing or other equivalent barrier - A manmade obstruction that is at least 12 feet high that is used to prevent fugitive dust from stationary equipment, stockpiles, in-plant roads, and traffic areas from leaving the plant property.
- (F) Permanent concrete batch plant - For the concrete batch plant standard permit, it is a concrete batch plant that is not a temporary or specialty concrete batch plant.
- (G) Related project segments - For plants on a Texas Department of Transportation right-of-way, related project segments are one contract with multiple project locations or one contractor with multiple contracts in which separate project limits are in close proximity to each other. A plant that is sited on the right-of-way is usually within project limits. However, a plant located at an intersection or wider right-of-way outside project limits is acceptable if it can be easily associated with the project.
- (H) Right-of-way of a public works project - Any public works project that is associated with a right-of-way. Examples of right-of-way public works projects are public highways and roads, water and sewer pipelines, electrical transmission lines, and other similar works. A facility must be in or contiguous to the right-of-way of the public works project to be exempt from the public notice requirements listed in THSC, § 382.056, Notice of Intent to Obtain Permit or Permit Review; Hearing.
- (I) Setback distance - The minimum distance from the nearest suction shroud fabric/cartridge filter exhaust (truck mix plant), drum feed fabric/cartridge filter exhaust (central mix plant), batch mixer feed exhaust (specialty plant), cement/fly ash storage silos, and/or engine to any property line.
- (J) Site - The total of all stationary sources located on one or more contiguous or adjacent properties, that are under common control of the same person (or persons under common control).
- (K) Specialty concrete batch plant - For the concrete batch plant standard permit, it is a concrete batch plant with a low production concrete mixing plant that manufactures concrete less than or equal to 60 cubic yards per hour (yd<sup>3</sup>/hr). These plants are typically dedicated to manufacturing precast concrete products, including but not limited to burial vaults, septic tanks, yard ornaments, concrete block, and pipe, etc. This does not include small repair projects using mortar, grout, gunite, or other concrete repair materials.
- (L) Stationary internal combustion engine - For the concrete batch plant standard permit, it is any internal combustion engine that remains at a location for more than 12 consecutive months and is not defined as a nonroad engine according to 40 Code of Federal Regulations (CFR) 89.2, Definitions.
- (M) Temporary concrete batch plant - For the concrete batch plant standard permit, it is a concrete batch plant that occupies a designated site for not more than 180 consecutive days or that supplies concrete for a single project (single contract or same contractor for related project segments), but not for other unrelated projects.
- (N) Traffic areas - For the concrete batch plant standard permit, it is an area within the concrete batch plant that includes stockpiles and the area where mobile equipment moves or supplies aggregate to the batch plant and trucks supply aggregate and cement.

- (O) Truck mix plant – A concrete batch plant where sand, aggregate, cement, cement supplement, 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 placed.

**(3) Administrative Requirements**

- (A) The owner or operator of any concrete batch plant seeking authorization under this standard permit shall register in accordance with 30 TAC § 116.611, Registration to Use a Standard Permit. Owners or operators shall submit a completed, current PI-1S-CBP, Concrete Batch Plant Standard Permit Registration Application.
- (B) Owners or operators shall also comply with 30 TAC § 116.614, Standard Permit Fees when they are required to complete public notice under section four of this standard permit.
- (C) No owner or operator of a concrete batch plant shall begin construction or operation without obtaining written approval from the executive director.
- (D) The time period in 30 TAC § 116.611(b) (45 days) does not apply to owners or operators registering plants under this standard permit.
- (E) Beginning on the effective date, all new and modified sources must comply with this standard permit.
- (F) Renewals shall comply with this standard permit on the later of:
  - (i) Two years from the effective date; or
  - (ii) the date the facility's registration is renewed.
- (G) Owners or operators of temporary concrete plants seeking registration and those already registered for this standard permit that qualify for relocation under subsection (10)(A) are exempt from public notice requirements in section (4) of this standard permit.
- (H) During start of construction, the owner or operator of a plant shall comply with 30 TAC § 116.120(a)(1), Voiding of Permits, and commence construction within 18 months of written approval from the executive director.
- (I) Owners or operators are not required to submit air dispersion modeling as a part of this concrete batch plant standard permit registration.
- (J) Owners or operators shall keep written records on-site for a rolling 24-month period. Owners or operators shall make these records available at the request of TCEQ personnel or any air pollution control program having jurisdiction. Records shall be maintained on-site for the following including, but not limited to:
  - (i) 30 TAC § 101.201, Emissions Event Reporting and Recordkeeping Requirements;
  - (ii) 30 TAC § 101.211, Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements;

- (iii) production rates for hourly and annual operations that demonstrate compliance with the tables in subsection (8)(A) or the production limitations in subsection (9)(A) of this standard permit, as applicable;
  - (iv) all repairs and maintenance of abatement systems and other dust suppression controls;
  - (v) Material Safety Data Sheets for all additives and other chemicals used at the site;
  - (vi) road cleaning, application of road dust control, or road maintenance for dust control;
  - (vii) stockpile dust suppression;
  - (viii) monthly silo warning device or shut-off system tests;
  - (ix) quarterly visible emissions observations and any corrective actions required to control excess visible emissions;
  - (x) demonstration of compliance with subsection (6)(B) of this standard permit;
  - (xi) type of fuel used to power engines authorized by this standard permit; and
  - (xii) demonstration of compliance with subsection (5)(L) of this standard permit.
- (K) Owners or operators will document and report abatement equipment failure or visible emissions deviations in excess of paragraph (5)(B)(iii) in accordance with 30 TAC Chapter 101, General Air Quality Rules as appropriate.

**(4) Public Notice**

The owner or operator shall follow the notice requirements in 30 TAC Chapter 39, Public Notice, unless a temporary concrete batch plant is exempted from public notice under 30 TAC § 116.178(b), Relocations and Changes of Location of Portable Facilities.

**(5) General Requirements**

- (A) Owners or operators shall vent all cement/fly ash storage silos, weigh hoppers, and auxiliary storage tanks to a fabric/cartridge filter or to a central fabric/cartridge filter system except as allowed by subsection (9)(B).
- (B) Owners or operators shall maintain fabric or cartridge filters and collection systems in good working condition by meeting all the following:
  - (i) operating them properly with no tears or leaks;
  - (ii) using filter systems (including any central filter system) designed to meet a minimum control efficiency of at least 99.5 percent at particle sizes of 2.5 microns and smaller;
  - (iii) meeting a performance standard of no visible emissions exceeding 30 seconds in any six-minute period as determined using United States Environmental

Protection Agency (EPA) Test Method (TM) 22 in Appendix A-7 to Part 60 - Test Methods 19 through 25E; and

- (iv) sufficiently illuminating silo filter exhaust systems when cement or fly ash silos are filled during non-daylight hours to enable a determination of compliance with the visible emissions requirement in paragraph (5)(B)(iii) of this standard permit.
- (C) When transferring cement/fly ash, owners or operators shall:
- (i) totally enclose conveying systems to and from storage silos and auxiliary storage tanks, operate them properly, and maintain them with no tears or leaks; and
  - (ii) maintain the conveying system using a performance standard of no visible emissions exceeding 30 seconds in any six-minute period as determined using EPA TM 22 in Appendix A-7 to Part 60 - Test Methods 19 through 25E, except during cement and fly ash tanker connect and disconnect.
- (D) The owner or operator shall install an automatic shut-off or warning device on storage silos.
- (i) An automatic shut-off device on the silo shall shut down the loading of the silo or auxiliary storage tank prior to reaching its capacity during loading operations to avoid adversely impacting the pollution abatement equipment or other parts of the loading operation.
  - (ii) If a warning device is used, it shall alert operators in sufficient time to prevent an adverse impact on the pollution abatement equipment or other parts of the loading operation. Visible warning devices shall be kept free of particulate build-up at all times.
  - (iii) Silo and auxiliary storage tank warning devices or shut-off systems shall be tested at least once monthly during operations and records shall be kept indicating test and repair results according to subsection (3)(J) of this standard permit. Silo and auxiliary storage tank loading and unloading shall not be conducted with inoperative or faulty warning or shut-off devices.
- (E) Owners or operators shall control emissions from in-plant roads and traffic areas at all times by one or more of the following methods:
- (i) watering them;
  - (ii) treating them with dust-suppressant chemicals as described in the application of aqueous detergents, surfactants, and other cleaning solutions in the de minimis list;
  - (iii) covering them with a material such as, (but not limited to), roofing shingles or tire chips and used in combination with (i) or (ii) of this subsection; or
  - (iv) paving them with a cohesive hard surface that is maintained intact and cleaned regularly.

- (F) Owners or operators shall use water, dust-suppressant chemicals, or cover stockpiles, as necessary to minimize dust emissions. Stockpiles shall be limited to a total of no more than 1.5 acres.
- (G) Owners or operators shall immediately clean up spilled materials. To minimize dust emissions, owners or operators shall contain, or dampen spilled materials.
- (H) There shall be no visible fugitive emissions leaving the property. Observations for visible emissions shall be performed and recorded quarterly. The visible emissions determination shall be made during normal plant operations. Observations shall be made on the downwind property line for a minimum of six minutes. If visible emissions are observed, an evaluation must be accomplished in accordance with EPA TM 22 in Appendix A-7 to Part 60 - Test Methods 19 through 25E, using the criteria that visible emissions shall not exceed a cumulative 30 seconds in duration in any six-minute period. If visible emissions exceed the TM 22 criteria, immediate action shall be taken to eliminate the excessive visible emissions. The corrective action shall be documented within 24 business hours of completion.
- (I) The owner or operator shall locate the concrete batch plant operating under this standard permit at least 550 feet from any crushing plant or hot mix asphalt plant. The owner or operator shall measure from the closest point on the concrete batch plant to the closest point on any other facility. If the owner or operator cannot meet this distance, then the owner or operator shall not operate the concrete batch plant at the same time as the crushing plant or hot mix asphalt plant.
- (J) When operating multiple concrete batch plants on the same site, the owner or operator shall comply with the appropriate site production and setback limits specified in sections (8) or (9) of this standard permit.
- (K) Concrete additives shall not emit volatile organic compounds (VOCs).
- (L) All sand and aggregate shall be washed prior to delivery to the site.
- (M) Any claim under this standard permit shall comply with the following:
  - (i) 30 TAC § 116.604, Duration and Renewal of Registrations to Use Standard Permits;
  - (ii) 30 TAC § 116.605(d)(1), Standard Permit Amendment and Revocation;
  - (iii) 30 TAC § 116.614;
  - (iv) the public notice processes established in THSC, § 382.055, Review and Renewal of Preconstruction Permit;
  - (v) the public notice processes established in THSC, § 382.056;
  - (vi) the contested case hearing and public notice requirements established in 30 TAC § 55.152(a)(2), Public Comment Period; and
  - (vii) the contested case hearing and public notice requirements established in 30 TAC § 55.201(h)(i)(C), Requests for Reconsideration or Contested Case Hearing.

- (N) The owner or operator of any concrete batch plant authorized by this standard permit shall comply with 30 TAC § 101.4, Nuisance.

**(6) Engines**

- (A) This standard permit authorizes emissions from a stationary compression ignition internal combustion engine (or combination of engines) of no more than 1,000 total horsepower (hp).
- (B) Owners or operators of concrete batch plants that include one or more stationary compression ignition internal combustion engines shall comply with additional applicable engine requirements in 40 CFR 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, and any other applicable state or federal regulation.
- (C) Engine exhaust stacks shall be a minimum of eight feet tall.
- (D) Fuel for the engine shall be liquid fuel with a maximum sulfur content of no more than 0.0015 percent by weight and shall not consist of a blend containing waste oils or solvents.
- (E) Emissions from the engine(s) shall not exceed 2.61 grams per horsepower-hour (g/hp-hr) of NO<sub>x</sub>, per manufacturer's specifications. A copy of the manufacturer's specifications shall be kept at the site.
- (F) If engines are being used for electrical power or equipment operations, then the site is limited to a total of 1,000 hp in simultaneous operation. There are no restrictions to engine operations if the engines will be on-site for less than 12 consecutive months.

**(7) Planned Maintenance, Startup, and Shutdown (MSS) Activities**

This standard permit authorizes operations including planned startup and shutdown emissions. Maintenance activities are not authorized by this standard permit and will need separate authorization unless the activity can meet the conditions of 30 TAC § 116.119, De Minimis Facilities or Sources.

**(8) Operational Requirements for Permanent and Temporary Concrete Plants**

- (A) Concrete batch plants authorized under this standard permit shall be limited to the maximum hourly production rate, and minimum setback distances for the suction shroud fabric/cartridge filter exhaust (truck mix plant), drum feed fabric/cartridge filter exhaust (central mix plant), cement/fly ash storage silos, and/or engine, based upon the plant location as follows:
  - (i) A single truck mix plant shall operate under the requirements in subsection (8)(E) and shall comply with Table 1 below, except as provided in paragraph (A)(ii) of this section.

**Table 1: Production Rates and Setback Distances, single truck mix plant with shrouded mixer truck-receiving funnel.**

Location (County)	Production Rate	Setback Distance (ft)
Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller	200 yd <sup>3</sup> /hour	200
Cameron and Hidalgo		300
All other counties		100

- (ii) A single truck mix plant operating under the requirements in subsection (8)(E) and subsection (8)(F) shall comply with Table 2 below.

**Table 2: Production Rates and Setback Distances, single truck mix plant with shrouded mixer truck-receiving funnel and enclosure.**

Location (County)	Production Rate	Setback Distance (ft)
All counties	200 yd <sup>3</sup> /hour	100

- (iii) Multiple truck mix plants at the same site operating under the requirements in subsection (8)(E) and subsection (8)(F) shall comply with Table 3 below.

**Table 3: Production Rates and Setback Distances, multiple truck mix plants at a single site with enclosure.**

Location (County)	Total Site Production Rate	Setback Distance (ft) for each Plant
Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller	300 yd <sup>3</sup> /hour	200
Cameron and Hidalgo		200
All other counties		100

- (iv) Central mix plants shall comply with Table 4 below.

**Table 4: Production Rates and Setback Distances, central mix plants.**

Location (County)	Production Rate	Setback Distance (ft)
Cameron and Hidalgo	300 yd <sup>3</sup> /hour	200
All other counties		100



- (B) Temporary concrete batch plants approved to operate in or contiguous to the right-of-way of a public works project are exempt from subsections (8)(E) and (F) and the minimum setback distances.
- (C) Concrete batch plants shall be limited to a maximum production rate of no more than 650,000 cubic yards per year (yd<sup>3</sup>/yr) in any rolling 12-month period.
- (D) The owner or operator shall install and properly maintain a suction shroud at the truck mix batch drop point or a total enclosure of the central mix drum feed exhaust and vent the captured emissions to a fabric/cartridge filter system with a minimum of 5,000 actual cubic feet per minute (acfm) of air.
- (E) For truck mix plants, the owner or operator shall shelter the drop point by an intact three-sided enclosure with a flexible shroud hanging from above the truck, or equivalent dust collection technology that extends below the mixer truck-receiving funnel.
- (F) For alternative setback distances as listed in subsection (8)(A) Tables 2 and 3, in addition to subsection (8)(E), the owner or operator of truck mix plants shall shelter the truck loading operation with a three-sided solid enclosure or equivalent that extends from the ground level to three feet above the truck-receiving funnel.
- (G) For permanent plants, the owner or operator shall prevent tracking of sediment onto adjacent roadways and reduce the generation of dust by one or more of the following methods:
  - (i) watering, sweeping, and cleaning the plant road entrances;
  - (ii) the use of a rumble grate (or equivalent) that is placed at least 50 feet from a public road to dislodge sediment from the wheels and undercarriage of trucks that haul aggregate, cement, and/or concrete;
  - (iii) the use of a vacuum truck (or equivalent) to clean the plant road entrances; or
  - (iv) the use of a tire-wash system (or equivalent) to remove sediment from the wheels and undercarriage of trucks that haul aggregate, cement, and/or concrete. It shall be (1) located in front of some type of traffic restriction such as a scale, plant gate or a stop sign to encourage its proper use, and (2) shall be set back at least 50 feet from the public road. This permit does not authorize the construction and/or use of a truck washing system under Texas Water Code Chapter 26.
- (H) Stationary equipment (excluding the suction shroud fabric/cartridge filter exhaust, drum feed fabric/cartridge filter exhaust, cement/fly ash storage silos, and engine), stockpiles, and vehicles used for the operation of the concrete batch plant (except for incidental traffic and the entrance and exit to the site), shall not be located closer than 50 feet less than the applicable minimum setback distance listed in subsection (8)(A) from any property line.
- (I) In lieu of meeting the distance requirements for roads of subsection (8)(H) of this standard permit, the owner or operator shall:

- (i) construct and maintain in good working order dust suppressing fencing or other equivalent barriers as a border around roads, other traffic areas, and work areas; and
  - (ii) construct these borders to a height of at least 12 feet.
- (J) In lieu of meeting the distance requirements for stockpiles of subsection (8)(H) of this standard permit, the owner or operator shall contain stockpiles within a three-walled bunker that extends at least two feet above the top of the stockpile.
- (K) For permanent plants, the owner or operator shall pave all entry and exit roads and main traffic routes associated with the operation of the concrete batch plant (including batch truck and material delivery truck roads) with a cohesive hard surface that shall be cleaned and maintained intact. All batch trucks and material delivery trucks shall remain on the paved surface when entering, conducting primary function, and leaving the property. The owner or operator shall maintain other traffic areas using the control requirements of subsection (5)(E) of this standard permit.

**(9) Additional Requirements for Specialty Concrete Batch Plants**

- (A) Specialty concrete batch plants authorized under this standard permit shall be limited to the maximum hourly production rate, maximum annual production rate in any rolling 12-month period, and minimum setback distance for the batch mixer feed exhaust as follows:

**Table 5: Hourly and Annual Maximum Production Rates and Minimum Setback Distances, Specialty Concrete Batch Plants**

Maximum Hourly Production Rate (yd <sup>3</sup> /hr)	Maximum Annual Production Rate (yd <sup>3</sup> /yr)	Minimum Setback Distance (ft)
No more than 30	131,400	100
More than 30 but less than or equal to 60	262,800	200

- (B) As an alternative to the requirement in subsection (5)(A) of this standard permit, the owner or operator may vent the cement/fly ash weigh hopper inside the batch mixer.
- (C) The owner or operator shall control dust emissions at the batch mixer feed so that no outdoor visible emissions occur by one of the following:
- (i) using a suction shroud or other pickup device delivering air to a fabric or cartridge filter;
  - (ii) using an enclosed batch mixer feed; or
  - (iii) conducting the entire mixing operation inside an enclosed process building.
- (D) The owner or operator shall not operate vehicles used for the operation of the concrete batch plant (except for incidental traffic and the entrance and exit to the site) within a minimum buffer distance of 50 feet less than the applicable minimum setback distance listed in subsection (9)(A) from any property line.

- (E) In lieu of meeting the buffer distance requirement for roads and other traffic areas in subsection (9)(D) of this standard permit, owners or operators shall:
  - (i) construct dust suppressing fencing or other barriers as a border around roads, other traffic areas, and work areas; and
  - (ii) construct these borders to a height of at least 12 feet.

**(10) Temporary Concrete Plants Relocation Requirements**

- (A) The appropriate TCEQ regional office may approve, without the need of public notice referenced in section (4) of this standard permit, the relocation of a temporary concrete batch plant that has previously been determined by the commission to be in compliance with the technical requirements of the concrete batch plant standard permit version adopted at registration that provides the information listed under section (10)(B) and meets one of the following conditions:
  - (i) a registered portable facility and associated equipment are moving to a site for support of a public works project in which the proposed site is located in or contiguous to the right-of-way of the public works project; or
  - (ii) a registered portable facility is moving to a site in which a portable facility has been located at the site at any time during the previous two years and the site was subject to public notice.
- (B) For relocations meeting subsection (10)(A) of this standard permit, the owner or operator must submit to the regional office and any local air pollution control agency having jurisdiction at least 12 business days prior to locating at the site:
  - (i) the company name, address, company contact, and telephone number;
  - (ii) the regulated entity number (RN), customer reference number (CN), applicable permit or registration numbers, and if available, the TCEQ account number;
  - (iii) the location from which the facility is moving (current location);
  - (iv) a location description of the proposed site (city, county, and exact physical location description);
  - (v) a scaled plot plan that identifies the location of all equipment and stockpiles, and also indicates that the required setback distances to the property lines can be met at the new location;
  - (vi) representation of maximum hourly and annual site production;
  - (vii) a scaled area map that clearly indicates how the proposed site is contiguous or adjacent to the right-of-way of a public works project (if required);
  - (viii) the proposed date for start of construction and expected date for start of operation;

- (ix) the expected time period at the proposed site;
  - (x) the permit or registration number of the portable facility that was located at the proposed site any time during the last two years, and the date the facility was last located there. This information is not necessary if the relocation request is for a public works project that is contiguous or adjacent to the right-of-way of a public works project; and
  - (xi) proof that the proposed site had accomplished public notice, as required by 30 TAC Chapter 39. This proof is not necessary if the relocation request is for a public works project that is contiguous or adjacent to the right-of-way of a public works project.
- (C) The owner or operator shall submit a completed current TCEQ Regional Notification Standard Permit/PBR Relocation Form when applying to relocate a temporary concrete batch plant.