

**AIR QUALITY STANDARD PERMIT FOR COTTON GIN FACILITIES AND COTTON
BURR TUB GRINDERS**

Effective Date: April 7, 2010

This air quality standard permit authorizes the air emissions associated with cotton gin facilities and cotton burr tub grinders that meet all of the applicable conditions in sections (1) through (7) of this standard permit.

This standard permit does not relieve the owner or operator from complying with any other applicable provision of the Texas Health and Safety Code, Texas Water Code, rules of the Texas Commission on Environmental Quality (TCEQ), or any additional state or federal regulations. Emissions that exceed the limits in this standard permit are not authorized and are violations of the standard permit.

(1) Applicability

- (A) This standard permit may be used to authorize air emissions from cotton gin facilities (including all material handling, pre-cleaning and cleaning equipment, cotton dryers, burners, and engines) and cotton burr tub grinders on or after the effective date of this standard permit. This standard permit also authorizes any fugitive emissions associated with cotton gin facilities and cotton burr tub grinders authorized by this standard permit.
- (B) Cotton gin facilities do not qualify for authorization under this standard permit if any on-site associated fuel-fired equipment (including, but not limited to, dryers and burners) has an individual heating rate of ten million British thermal units per hour (Btu/hr) or greater, or a combined heating rate of greater than 40 million Btu/hr. This requirement does not apply to engines.
- (C) Facilities do not qualify for authorization under this standard permit if any individual engine (or combination of engines) rated greater than 525 horsepower is used.
- (D) A facility does not qualify for authorization under this standard permit if it constitutes a new major stationary source or major modification as defined by Title 30 Texas Administrative Code (30 TAC) §116.12, Nonattainment and Prevention of Significant Deterioration Review Definitions, or is located at a major stationary source.
- (E) This standard permit cannot authorize any emission increase of an air contaminant that is specifically prohibited by a condition in any permit issued under 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification, at the site.
- (F) This standard permit cannot be used in conjunction with any permit or standard permit issued under 30 TAC Chapter 116 or in conjunction with any permit by rule

(PBR) under 30 TAC Chapter 106, Permits by Rule, except that PBRs and standard permits may be used, as specified in section (7) of this standard permit, to authorize planned maintenance activities and facilities. This requirement does not preclude the use of permits, standard permits, and PBRs to authorize other facilities (that are not associated with the cotton gin facilities or cotton burr tub grinder(s)) at the site provided the cotton gin facilities and cotton burr tub grinder(s) remain in compliance with all requirements of this standard permit.

- (G) This standard permit cannot be used if the total site-wide emissions do not meet the emission rate requirements specified in sections (5), (6), and (7) of this standard permit.

(2) Definitions

- (A) Cotton gin - a facility, or group of facilities, that receives seed cotton; removes moisture from and separates plant matter and seed from the cotton; and conducts subsequent processes, which include grinding of plant matter and baling and/or packaging of lint or lint waste.
- (B) Off-site receptor - any recreational area or residence or other structure that is in use at the time of the standard permit claim and that is not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located.
- (C) Site - a site as defined in 30 TAC §122.10, General Definitions.
- (D) Temporary - operating at a site no more than 180 calendar days during any 12-month period.

(3) General Administrative Requirements

Any claim under this standard permit must comply with applicable conditions of 30 TAC Chapter 116, Subchapter F, Standard Permits, except 30 TAC §116.610(a)(1), Applicability; §116.611(a) and (b), Registration to Use a Standard Permit; §116.614, Standard Permit Fees; and §116.615(5), Start-up Notification (General Conditions).

(4) General Operating Requirements

- (A) Facilities authorized by this standard permit must comply with all applicable state and federal regulations, including, but not limited to, the following:
 - (i) facilities located in counties subject to 30 TAC Chapter 101, Subchapter H, Division 3, Mass Emissions Cap and Trade Program, and 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, shall comply with all applicable requirements in 30 TAC Chapter 101, Subchapter H, Division 3, and 30 TAC Chapter 117;

- (ii) Title 40 Code of Federal Regulations (40 CFR) Part 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines;
 - (iii) 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines; and
 - (iv) 30 TAC §111.171, Emissions Limits Based on Process Weight Method.
- (B) All rotary drum filter, fabric filter, and cyclone collection systems used to control particulate emissions from the cotton gin facilities authorized by this standard permit shall meet the following requirements, as applicable:
 - (i) fabric filter and drum filter systems shall be operated properly with no tears or leaks;
 - (ii) fabric filter and drum filter systems shall be designed to meet an outlet grain loading not to exceed 0.01 grains per dry standard cubic foot (combined front half and back half);
 - (iii) in accordance with U.S. Environmental Protection Agency (EPA) Test Method 9, opacity of emissions from any fabric filter or drum filter shall not exceed five percent averaged over a six-minute period;
 - (iv) cyclone collection systems shall be operated properly with no leaks; and
 - (v) cyclone collectors shall be properly sized high efficiency cyclones with a cone length at least twice the diameter of the cyclone.
- (C) Fugitive emissions from burr hoppers authorized by this standard permit shall be minimized through the use of appropriate operational practices and/or other control methods to prevent visible emissions from traveling off property during trash dumping operations.
- (D) Fuel for any dryer or burner authorized by this standard permit shall be pipeline quality sweet natural gas or propane.
- (E) Fuel for any engine authorized by this standard permit shall be gas fuel, liquid diesel fuel, or biodiesel and biodiesel fuel blends meeting the requirements of this subsection. Gas fuel shall be limited to pipeline quality sweet natural gas, liquid petroleum gas, or fuel gas containing no more than ten grains total sulfur per 100 dry standard cubic feet. Liquid diesel fuel shall be petroleum distillate oil that is not a blend, does not contain waste oils or solvents, and contains 0.05 percent or less sulfur by weight. Biodiesel fuel and biodiesel used in biodiesel fuel blends shall meet the specifications of American Society for Testing and Materials

(ASTM) D6751 and shall comply with the applicable requirements of 30 TAC Chapter 114, Control of Air Pollution from Motor Vehicles, Subchapter H, Division 2, Low Emission Diesel.

- (F) For any engine authorized by this standard permit, emissions of nitrogen oxides (NO_x) or operating hours shall not exceed the following limits at each site:
 - (i) 2.0 grams per horsepower-hour (g/hp-hr) for gas fuel;
 - (ii) 11.0 g/hp-hr for liquid diesel or biodiesel-based fuel; or
 - (iii) 1,200 hours during any 12-month period.
- (G) Any engine authorized by this standard permit shall be equipped with an exhaust stack with a minimum height of ten feet above ground level.
- (H) All air pollution abatement equipment shall be checked every 30 days (unless more frequent checks/inspections are otherwise specified in this standard permit) and shall be properly maintained and operated during the operation of the facilities authorized by this standard permit. Scheduled cleaning and maintenance of the abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency is adequately maintained.
- (I) All facilities and associated equipment authorized by this standard permit, including any transfer equipment, must be maintained in good working order and operated properly.
- (J) For all cotton gin facilities, cotton burr tub grinders, and planned maintenance, start-up, and shutdown (MSS) facilities and activities authorized by this standard permit, the following records shall be maintained at the site for a rolling 24-month period and be made available at the request of personnel from the TCEQ or any other air pollution control agency or program having jurisdiction:
 - (i) if limiting hours of operation, as specified in paragraph (4)(F)(iii) of this standard permit, records of hours of operation for each engine;
 - (ii) all records to demonstrate that the cotton gin facilities and cotton burr tub grinder(s) meet the applicable emission rate and minimum setback distance limitations determined by using Figures 1 through 3 (whichever is applicable) of this standard permit;
 - (iii) records for temporary cotton burr tub grinders shall remain with the primary grinder equipment;

- (iv) records of periodic monitoring and scheduled cleaning and maintenance of the abatement equipment to demonstrate compliance with subsection (4)(H) of this standard permit; and
- (v) records containing sufficient information to demonstrate compliance with paragraphs (7)(C)(i) through (7)(C)(iv) of this standard permit that include:
 - (a) the type and reason for the activity or facility;
 - (b) the processes and equipment involved;
 - (c) the date, time, and duration of the activity or facility operation; and
 - (d) the amount of material usage and emission rates.

(5) Requirements Specific to Cotton Gin Facilities (New, Modified, or Existing)

- (A) In addition to section (4) of this standard permit, cotton gin facilities shall also meet the following requirements:
 - (i) emission rates shall be determined using calculation methods accepted by the TCEQ Air Permits Division at the time of the standard permit claim;
 - (ii) all fan exhausts (including cyclones, drum filters, and fabric filters), burr hoppers, burr stackers, and cotton burr tub grinders and associated engines shall be located at least 100 feet from the nearest property line using the shortest distance to the nearest property line, and shall meet any property line minimum setback distance as required in paragraph (5)(A)(vi) of this standard permit;
 - (iii) emissions of lint and cotton trash shall be minimized by proper maintenance of all buildings and gin equipment. Any accumulations of lint, cotton trash, and cotton burrs (other than those from burr stackers) on the cotton gin site shall be cleaned up and removed from the cotton gin site on a daily basis;
 - (iv) if burr stackers are used to handle and store lint and cotton trash from the cotton gin facilities, the following requirements shall apply:
 - (a) all cotton trash shall be properly stacked by the burr stacker in the burr storage area until this material can be removed from the cotton gin site. Any other accumulations of lint, cotton trash, and cotton burrs on the cotton gin site shall be cleaned up and removed from the cotton gin site on a daily basis; and

- (b) a water spray system for the burr stacker shall be used as necessary to minimize visible emissions from traveling off property during stacking operations;
 - (v) One or more of the following methods shall be used to control emissions from cotton gin plant roads, parking areas, and other traffic areas to maintain compliance with all TCEQ rules and regulations:
 - (a) sprinkling with water as necessary;
 - (b) treating with effective dust suppressant(s) as necessary; or
 - (c) paving (with a cohesive hard surface) and cleaning as necessary; and
 - (vi) The cotton gin shall be in compliance with the PM₁₀ emission rates, minimum setback distance requirements, and emission controls as determined by using Figure 1 or 2 (whichever is applicable) of this standard permit. The minimum setback distance shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line. All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 1 or 2 (whichever is applicable) of this standard permit.
 - (B) Any cotton burr tub grinder authorized by this standard permit at the cotton gin site shall meet the requirements of section (6) of this standard permit with the exception of paragraphs (6)(A)(vii) and (6)(A)(viii).
 - (C) Notification and registration are not required for cotton gin facilities authorized by this standard permit.
- (6) Requirements Specific to Permanent or Temporary Cotton Burr Tub Grinders (New, Modified, or Existing)
- (A) In addition to section (4) of this standard permit, permanent or temporary cotton burr tub grinders shall also meet the following requirements:
 - (i) cotton burr tub grinders shall be used only to grind cotton burrs;
 - (ii) no more than one cotton burr tub grinder and one associated engine shall operate co-located with an on-site cotton gin;
 - (iii) no more than two cotton burr tub grinders and two associated engines shall operate simultaneously at a site when the cotton burr tub grinders and associated engines are the only facilities present (with the exception of

facilities and activities as specified in section (7) of this standard permit) at the site;

- (iv) all associated conveyors shall be enclosed;
- (v) each cotton burr tub grinder shall be filled to at least one-half capacity by volume before grinding operations begin and the capacity shall be maintained at that level during grinding operations;
- (vi) emission rates shall be determined using calculation methods accepted by the TCEQ Air Permits Division at the time of the standard permit claim;
- (vii) cotton burr tub grinders and associated engines shall be the only facilities present (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site, shall be located at least 250 feet from the nearest off-site receptor, and shall meet any property line minimum setback distance as required in paragraph (6)(A)(viii) of this standard permit;
- (viii) cotton burr tub grinders and associated engines shall be the only facilities present (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site and meet one of the following scenarios:
 - (a) total PM₁₀ emissions from the site (including emissions from any facility or activity as specified in section (7) of this standard permit) shall be less than or equal to 4.10 lb/hr; or
 - (b) total PM₁₀ emissions from the site may be greater than 4.10 lb/hr if all cotton burr tub grinders and associated engines and any facility and activity, as specified in section (7) of this standard permit, emitting PM₁₀ at the site meet the minimum setback distance to the property line determined by using Figure 3 of this standard permit. The minimum setback distance shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line. All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 3 of this standard permit; and
- (ix) no visible emissions from the loading, operation, and unloading of any cotton burr tub grinder authorized by this standard permit shall leave the property.

- (B) Notification and registration are not required for cotton burr tub grinders authorized by this standard permit.

(7) Planned Maintenance, Start-up, and Shutdown (MSS) Activities

- (A) This standard permit authorizes all emissions from planned start-up and shutdown activities associated with facilities or groups of facilities that are authorized by this standard permit.

- (B) This standard permit authorizes emissions from the following planned maintenance activities and facilities associated with cotton gins and cotton burr tub grinders authorized by this standard permit:

- (i) abrasive blasting (wet blast and dry abrasive cleaning);
- (ii) surface preparation;
- (iii) surface coating;
- (iv) facilities used for testing and repair of engines;
- (v) compressors, pumps, or engines, and associated pipes, valves, flanges, and connections;
- (vi) hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, graphite, or wood;
- (vii) vacuum cleaning systems;
- (viii) hydraulic oil filtering;
- (ix) lubrication; and
- (x) brazing, soldering, welding, or metal cutting equipment.

- (C) Planned maintenance activities and facilities shall meet the following requirements.

- (i) The following materials are authorized and shall not be used at the site at more than the rates prescribed below:
 - (a) abrasives - 150 tons per year, 15 tons per month, and one ton per day;
 - (b) cleaning and stripping solvents and lubricants - 50 gallons per year;

- (c) coatings (excluding plating materials) - 100 gallons per year;
 - (d) dyes - 1,000 pounds per year;
 - (e) bleaches - 1,000 gallons per year;
 - (f) fragrances (excluding odorants) - 250 gallons per year; and
 - (g) water-based surfactants and detergents - 2,500 gallons per year.
- (ii) Planned maintenance activities associated with facilities or groups of facilities authorized by this standard permit shall not occur simultaneously (no two or more processes can occur at the same time), and these planned maintenance activities shall not occur simultaneously with production operations;
 - (iii) Planned maintenance activities and facilities at the site shall not emit more than 25 tons per year of any one air contaminant; and
 - (iv) Lead emissions from planned maintenance activities or facilities at the site shall be less than 0.6 tons per year.
- (D) Planned maintenance that cannot meet the requirements of subsections (7)(B) and (7)(C) of this standard permit may be authorized by one or by a combination of the following mechanisms, provided the planned maintenance activities do not occur simultaneously (no two or more processes can occur at the same time), and the planned maintenance activities do not occur simultaneously with production operations:
- (i) any applicable PBR under 30 TAC Chapter 106; or
 - (ii) any other applicable standard permit.

**Cotton Gin Facilities Controlled with Rotary Drum Filter,
Fabric Filter, and/or Cyclone Collection System Exhausted
Vertically**

Required Minimum Setback Distance

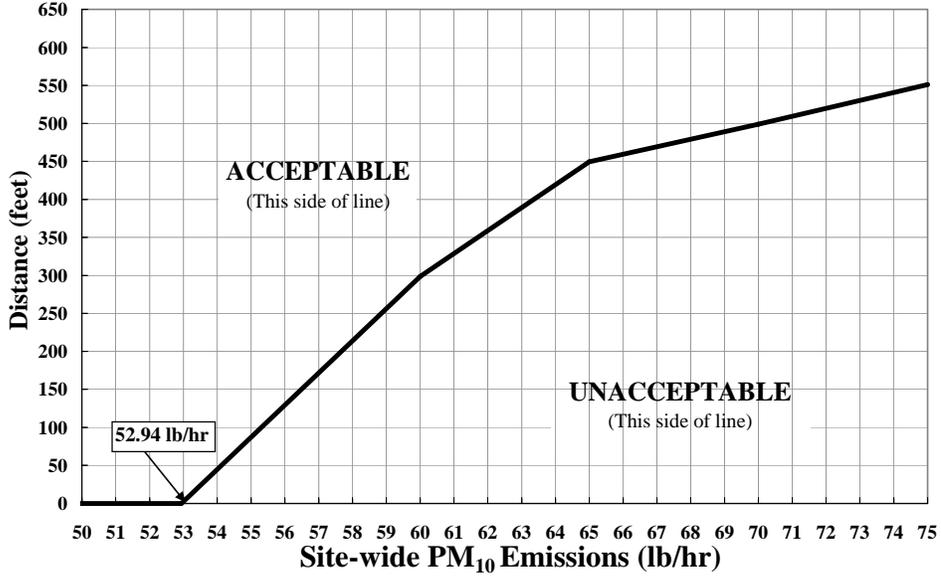


Figure 1

All Other Cotton Gin Facilities

Required Minimum Setback Distance

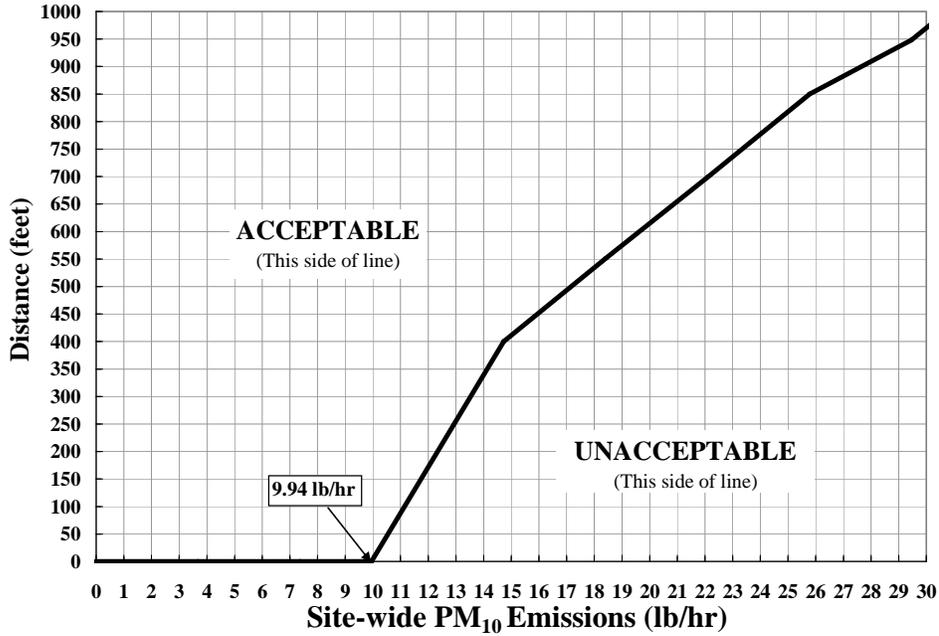


Figure 2

Cotton Burr Tub Grinder(s) Operating Alone at a Site
Required Minimum Setback Distance

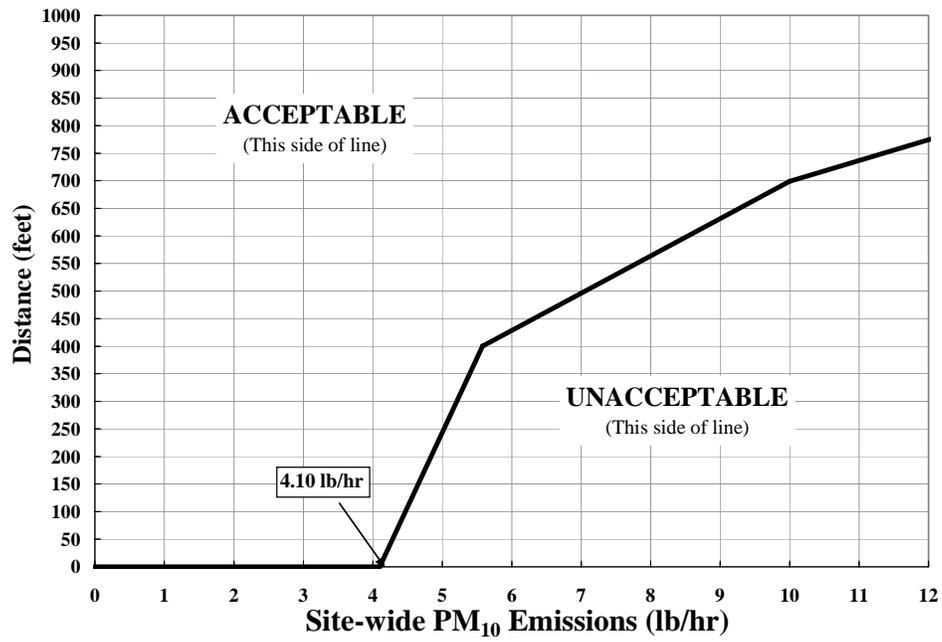


Figure 3