

# **AIR QUALITY STANDARD PERMIT FOR TEMPORARY AND PERMANENT POLYPHOSPHATE BLENDERS**

Effective Date: April 7, 2010

This air quality standard permit authorizes the air emissions associated with temporary and permanent polyphosphate blenders that meet all of the applicable conditions listed in sections (1) through (8) 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 temporary and permanent polyphosphate blenders (including associated anhydrous ammonia tank connections, phosphoric acid tank connections, anhydrous ammonia railcar connections, phosphoric acid railcar connections, and engines) on or after the effective date of this standard permit. This standard permit also authorizes any fugitive emissions associated with a polyphosphate blender authorized by this standard permit.
- (B) A polyphosphate blender does not qualify for authorization under this standard permit if it is used to manufacture a product on site other than liquid fertilizer made up of those constituents specified in subsection (2)(D) of this standard permit.
- (C) A polyphosphate blender does 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 polyphosphate blender 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) Sampling, as specified in subsection (5)(A) of this standard permit, shall demonstrate that the emission rates of ammonia, particulate matter less than or equal to ten microns in diameter (PM<sub>10</sub>), and fluorides do not exceed the emission rate limitations in sections (6) or (7) (whichever is applicable) of this standard permit.

- (F) 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.
- (G) 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 (8) 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 polyphosphate blender) at the site provided the polyphosphate blender remains in compliance with all requirements of this standard permit. On-site anhydrous ammonia storage and distribution operations, authorized through another applicable mechanism, may be used in association with a polyphosphate blender.
- (H) This standard permit cannot be used if the total site-wide emissions do not meet the emission rate requirements specified in sections (6), (7), and (8) of this standard permit.
- (I) This standard permit does not authorize emissions from on-site anhydrous ammonia storage and distribution operations.

(2) Definitions

- (A) Anhydrous ammonia - ammonia without water, which is a colorless gas or liquid depending upon its method of storage.
- (B) Anhydrous ammonia storage and distribution operation - a facility, or group of facilities, that receives, stores, and handles anhydrous ammonia.
- (C) Off-site receptor - any recreational area or residence or other structure that is in use at the time the standard permit registration is filed with the commission 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.
- (D) Polyphosphate blender - a facility, or group of facilities, that receives, mixes, reacts, and blends ammonia, superphosphoric acid, and water to manufacture liquid fertilizer.
- (E) Site - a site as defined in 30 TAC §122.10, General Definitions.

- (F) Temporary - operating at a site no more than 180 calendar days during any 12-month period.

(3) General Administrative Requirements

- (A) Specific registration and notification requirements for this standard permit are located in sections (6) and (7) of this standard permit. The relocation of temporary polyphosphate blenders authorized by, and meeting the requirements of, this standard permit is not subject to the requirements of 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).
- (B) 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 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; and
  - (iii) 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
- (B) Any operation authorized under this standard permit shall be limited to one temporary polyphosphate blender or one permanent polyphosphate blender at a site.
- (C) Any polyphosphate blender and engine authorized by this standard permit shall be equipped with a stack with a minimum height of 12 feet above ground level for the polyphosphate blender and a minimum height of ten feet above ground level for the engine.

- (D) In accordance with U.S. Environmental Protection Agency (EPA) Test Method 9, opacity of emissions from the polyphosphate blender stack authorized by this standard permit shall not exceed five percent averaged over a six-minute period.
- (E) All valves, connectors, flanges, and hoses associated with a polyphosphate blender authorized by this standard permit shall be properly maintained in leak-proof condition at all times.
- (F) Any polyphosphate blender authorized by this standard permit shall be equipped in such a manner that will prevent unauthorized access.
- (G) For polyphosphate blenders authorized by this standard permit and using a scrubber system to reduce ammonia emissions, one of the following procedures shall be used:
  - (i) an acid wash made up of process water and phosphoric acid diverted from the polyphosphate blender shall be introduced to the demister pad. The demister wash and product circulation system shall be in operation prior to the start of the reaction; or
  - (ii) a wash made up of process water diverted from the polyphosphate blender shall be introduced to the demister pad. The demister wash and product circulation system shall be in operation prior to the start of the reaction.
- (H) 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.
- (I) For any engine authorized by this standard permit, emissions of nitrogen oxides (NO<sub>x</sub>) 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) 2,880 hours during any 12-month period.
- (J) Total phosphoric acid emissions from associated fugitive components at the site shall be less than or equal to 0.0018 lb/hr.
- (K) If an anhydrous ammonia and distribution operation is located on site, total ammonia emissions from the anhydrous ammonia storage and distribution operation shall be less than or equal to 0.65 lb/hr.
- (L) The polyphosphate blender and all air pollution abatement equipment shall be checked a minimum of once at each new site and no less than every 30 days (unless more frequent checks are otherwise specified in this standard permit) and abatement equipment shall be properly maintained and operated during the operation of the facilities authorized by this standard permit. Scheduled cleaning and maintenance of the polyphosphate blender and abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency is adequately maintained.
- (M) All facilities and associated equipment authorized by this standard permit, including any transfer equipment, must be maintained in good working order and operated properly.
- (N) For all polyphosphate blenders 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) records of all repairs and replacements made to equipment associated with the polyphosphate blender;
  - (ii) if limiting hours of operation, as specified in paragraph (4)(I)(iii) of this standard permit, records of hours of operation for each engine;
  - (iii) documentation accurately reflecting the quantity of valves, seals, flanges, and open-ended lines associated with phosphoric acid handling to demonstrate compliance with subsection (4)(J) of this standard permit;
  - (iv) all records to demonstrate that the polyphosphate blender meets the applicable emission rate and minimum setback distance limitations

determined by using Figures 1 through 8 (whichever is applicable) of this standard permit;

- (v) records for permanent polyphosphate blenders shall be located at the site, and records for temporary polyphosphate blenders shall remain with the primary blender equipment;
- (vi) records of periodic monitoring and scheduled cleaning and maintenance of the polyphosphate blender and abatement equipment to demonstrate compliance subsection (4)(L) of this standard permit; and
- (vii) records containing sufficient information to demonstrate compliance with paragraphs (8)(C)(i) through (8)(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) Demonstration of Compliance

- (A) For the polyphosphate blender for which authorization is being requested, the owner or operator shall comply with the following sampling and testing requirements at the site specified in the initial registration request:
  - (i) The owner or operator shall perform stack sampling and/or other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the polyphosphate blender. The owner or operator is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their own expense.
  - (ii) The appropriate TCEQ regional office and any local air pollution control agencies or programs having jurisdiction shall be notified as soon as sampling is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:
    - (a) the proposed date for the pretest meeting for which the purpose is to review the necessary sampling and testing procedures, to provide the proper data forms for recording

pertinent data, and to review the format procedures for submitting the sampling reports;

- (b) the date sampling will occur to afford regional office staff the opportunity to observe all such sampling;
  - (c) the points or facilities to be sampled;
  - (d) the name of the firm conducting sampling;
  - (e) the type of sampling equipment to be used; and
  - (f) the method or procedure to be used in sampling.
- (iii) A written proposed description of any deviation from sampling procedures specified in standard permit conditions or the TCEQ or EPA sampling procedures shall be submitted to the appropriate TCEQ regional office, and a copy shall be submitted to the TCEQ Office of Permitting and Registration (OPR), Air Permits Division prior to the pretest meeting. The appropriate TCEQ regional director shall approve or disapprove of any deviation from specified sampling procedures. Any deviation from sampling procedures specified in this standard permit shall also be included in the final sampling report.
- (iv) The polyphosphate blender shall operate at maximum capacity during stack emission testing. If the polyphosphate blender is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- (v) Air contaminants to be tested include, but are not limited to, ammonia, PM<sub>10</sub>, and fluorides. Requests to waive testing for any pollutant specified in this condition shall be submitted in writing prior to the pretest meeting to the TCEQ OPR, Air Permits Division in Austin.
- (vi) Sampling procedures shall begin within 24 hours of start of operation of the polyphosphate blender.
- (vii) Primary operating parameters, including, but not limited to, the raw materials used during the testing, production rate, air flow rate, pH, specific gravity, and the pressure drop across the demister pad and packed bed shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting.

- (B) A polyphosphate blender that has met all of the sampling requirements in subsection (5)(A) of this standard permit may continue to operate under this standard permit while the TCEQ is determining initial compliance. Upon notification by the TCEQ OPR, Air Permits Division in Austin that the sampling results demonstrate that the polyphosphate blender is not in compliance with all applicable emission rate requirements of this standard permit, the owner or operator cannot continue to claim authorization under this standard permit and must cease all operations immediately. Authorization of the polyphosphate blender must occur through another applicable mechanism, or the owner or operator may request a new registration under this standard permit as specified in subsections (5)(H) and (5)(I) of this standard permit.
- (C) If, after the second registration, it cannot be demonstrated through sampling and/or testing that the polyphosphate blender is in compliance with all applicable emission rate requirements of this standard permit, the owner or operator may not request additional registration for the polyphosphate blender under this standard permit. Authorization of the polyphosphate blender must occur through another applicable mechanism.
- (D) For a determination of compliance with this standard permit, the owner or operator of a polyphosphate blender that has met all testing requirements as specified in subsection (5)(A) of this standard permit shall submit copies of the final sampling report within 30 days from the date the sampling is completed to the TCEQ regional office where the facility was sampled or tested, any local air pollution control agencies or programs having jurisdiction, and the TCEQ OPR, Air Permits Division in Austin. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ document entitled "Sampling Procedures Manual," and a copy of the following shall be maintained at the site for permanent polyphosphate blenders and with the primary blender equipment for temporary polyphosphate blenders and shall be made available at the request of personnel from the TCEQ or any other air pollution control agency or program having jurisdiction. The information/test data shall include the following:
- (i) a process description, including any control devices, the polyphosphate blender manufacturer, model, design, maximum design capacity, and the control device manufacturer and model;
  - (ii) a serial number (permanently affixed to the unit and readable under all conditions) that will be used to track the tested polyphosphate blender;

- (iii) information as to whether the test is a first or second attempt at demonstration of compliance under this standard permit; and
  - (iv) a detailed sampling report with final results and specific plant and operational data recorded during testing.
- (E) Sampling reports that do not contain the required information will not be accepted, and the owner or operator cannot continue to claim authorization under this standard permit and must cease all operations immediately upon notification by the TCEQ. Authorization of the polyphosphate blender must occur through another applicable mechanism, or the owner or operator may request a new registration under this standard permit as specified in subsections (5)(H) and (5)(I) of this standard permit.
- (F) Emission rates of ammonia, PM<sub>10</sub>, and fluorides resulting from testing shall be used to demonstrate compliance with the emission rate limitations as specified in paragraphs (6)(A)(iv) and (6)(A)(v) of this standard permit for temporary polyphosphate blenders or the emission rate limitations as specified in paragraph (7)(A)(iii) and (7)(A)(iv) of this standard permit for permanent polyphosphate blenders.
- (G) If it is determined by the TCEQ OPR, Air Permits Division in Austin that the initial sampling results demonstrate that the emission rates of ammonia, PM<sub>10</sub>, or fluorides exceed the emission rate limitations in sections (6) or (7) (whichever is applicable) of this standard permit, the owner or operator cannot continue to claim authorization for the polyphosphate blender under this standard permit and must cease all operations immediately upon notification by the TCEQ. Authorization of the polyphosphate blender must occur through another applicable mechanism, or the owner or operator may request a new registration under this standard permit as specified in subsections (5)(H) and (5)(I) of this standard permit.
- (H) Once the owner or operator is notified by the TCEQ OPR, Air Permits Division in Austin that the polyphosphate blender is not in compliance with the emission rate requirements of this standard permit, the owner or operator may submit a second registration request. This second registration must include substantial technical information to demonstrate that the polyphosphate blender will show compliance with the emission rate limitations in sections (6) or (7) (whichever is applicable) of this standard permit.
- (I) Any owner or operator of a polyphosphate blender seeking authorization with a second registration under this standard permit, due to a demonstration of non-compliance during initial sampling, must meet all sampling and testing requirements as specified in subsection (5)(A) of this

standard permit at the site specified in the second registration request. Once any required sampling at the specified site is complete, the owner or operator must cease all operations immediately until notified by the TCEQ that the sampling report has demonstrated the polyphosphate blender's compliance with all applicable emission rate requirements of this standard permit.

(6) Requirements Specific to Temporary Polyphosphate Blenders

(A) In addition to section (4) of this standard permit, temporary polyphosphate blenders shall also meet the following requirements:

(i) sampling as specified in subsection (5)(A) of this standard permit must have occurred and the last sampling report must have been deemed acceptable by the TCEQ. Once the owner or operator of a temporary polyphosphate blender has complied with the sampling requirements in subsection (5)(A) of this standard permit and has demonstrated compliance with all applicable emission rate and minimum setback distance requirements specified in section (6) of this standard permit, testing is not required when the facility relocates to another site, provided no modifications other than relocation are made to the facility;

(ii) for a temporary polyphosphate blender that has been tested at another site located in Texas, testing for initial authorization under this standard permit is not necessary, provided the last sampling report was deemed acceptable by the TCEQ, the last sampling report demonstrates the polyphosphate blender's compliance with all applicable emission rate and minimum setback distance requirements specified in section (6) of this standard permit, and no modifications other than relocation have been made since the last acceptable sampling. The last acceptable sampling report must be included with the initial registration request;

(iii) at each location, the polyphosphate blender shall operate within the primary operating parameters recorded during the sampling as specified in subsection (5)(A) of this standard permit. The operating parameters shall be recorded at four-hour intervals while the polyphosphate blender is in operation, and records shall be maintained with the primary blender equipment. These operating parameters include the following:

(a) raw materials;

(b) production rate; and

- (c) no more than ten percent variation from each of the following primary operating parameters recorded during the sampling:
  - (1) air flow rate (which shall also be in compliance with the flow rate specified in Figures 1 through 6 (whichever is applicable) of this standard permit);
  - (2) pH;
  - (3) specific gravity; and
  - (4) pressure drop across the demister pad and packed bed;
- (iv) the polyphosphate blender shall be in compliance with the ammonia emission rates, minimum setback distance requirements, air flow rates, and polyphosphate blender stack parameters as determined by using Figures 1 through 6 (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 Figures 1 through 6 (whichever is applicable) of this standard permit; and
- (v) to demonstrate compliance with maximum allowable PM<sub>10</sub> and fluoride emissions, a temporary polyphosphate blender shall meet one of the scenarios in Table 1 of this standard permit.

**Table 1. Temporary Polyphosphate Blenders – PM<sub>10</sub> and Fluoride Emissions**

Minimum polyphosphate blender stack exit flow rate	50 actual cubic feet per minute (acfm)	15,080 acfm	15,080 acfm	28,000 acfm
Maximum polyphosphate blender exit stack diameter	8 inches	4 feet	4 feet	9 feet
Minimum polyphosphate blender stack height	12 feet	12 feet	20 feet	12 feet
Maximum PM <sub>10</sub> emissions from the site	1.46 pound per hour (lb/hr)	4.50 lb/hr	12.80 lb/hr	6.90 lb/hr
Maximum PM <sub>10</sub> emissions from the polyphosphate blender stack	0.30 lb/hr	N/A	N/A	N/A
Maximum Fluoride emissions from the site	0.007 lb/hr	0.09 lb/hr	0.18 lb/hr	0.10 lb/hr

- (B) Written notification shall be submitted to the TCEQ regional office with jurisdiction over the relocation site prior to the relocation and/or operation of any temporary polyphosphate blender authorized by this standard permit.
- (C) Registration is not required for the relocation of temporary polyphosphate blenders authorized by this standard permit. Any modification (other than relocation) to a temporary polyphosphate blender authorized by this

standard permit requires a new registration and may require additional sampling and testing.

(7) Requirements Specific to Permanent Polyphosphate Blenders (New, Modified, or Existing)

(A) In addition to section (4) of this standard permit, permanent polyphosphate blenders shall also meet the following requirements:

(i) sampling as specified in subsection (5)(A) of this standard permit must have occurred and the last sampling report must have been deemed acceptable by the TCEQ;

(ii) the polyphosphate blender shall operate within the primary operating parameters recorded during the sampling as specified in subsection (5)(A) of this standard permit. The operating parameters shall be recorded at four-hour intervals while the polyphosphate blender is in operation. These operating parameters include the following:

(a) raw materials;

(b) production rate; and

(c) no more than ten percent variation from each of the following primary operating parameters recorded during the sampling:

(1) air flow rate (which shall also be in compliance with the flow rate specified in Figures 5 through 8 (whichever is applicable) of this standard permit);

(2) pH;

(3) specific gravity; and

(4) pressure drop across the demister pad and packed bed;

(iii) the polyphosphate blender shall be in compliance with the ammonia emission rates, minimum setback distance requirements, air flow rates, and polyphosphate blender stack parameters as determined by using Figures 5 through 8 (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 Figures 5 through 8 (whichever is applicable) of this standard permit; and

- (iv) to demonstrate compliance with maximum allowable PM<sub>10</sub> and fluoride emissions, a permanent polyphosphate blender shall meet one of the scenarios in Table 2 of this standard permit.

**Table 2. Permanent Polyphosphate Blenders – PM<sub>10</sub> and Fluoride Emissions**

Minimum polyphosphate blender stack exit flow rate	50 acfm	15,080 acfm
Maximum polyphosphate blender exit stack diameter	8 inches	4 feet
Minimum polyphosphate blender stack height	12 feet	20 feet
Maximum PM <sub>10</sub> emissions from the site	1.46 lb/hr	12.80 lb/hr
Maximum PM <sub>10</sub> emissions from the polyphosphate blender stack	0.30 lb/hr	N/A
Maximum Fluoride emissions from the site	0.007 lb/hr	0.18 lb/hr

- (B) Any modification to a permanent polyphosphate blender authorized by this standard permit requires a new registration and may require additional sampling and testing.

(8) 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 polyphosphate blenders that are 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 sections (8)(B) and (8)(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.

# Temporary Polyphosphate Blenders

Required Minimum Setback Distance

Minimum Exit Flow Rate: 15,080 acfm

Maximum Exit Stack Diameter: 4 feet

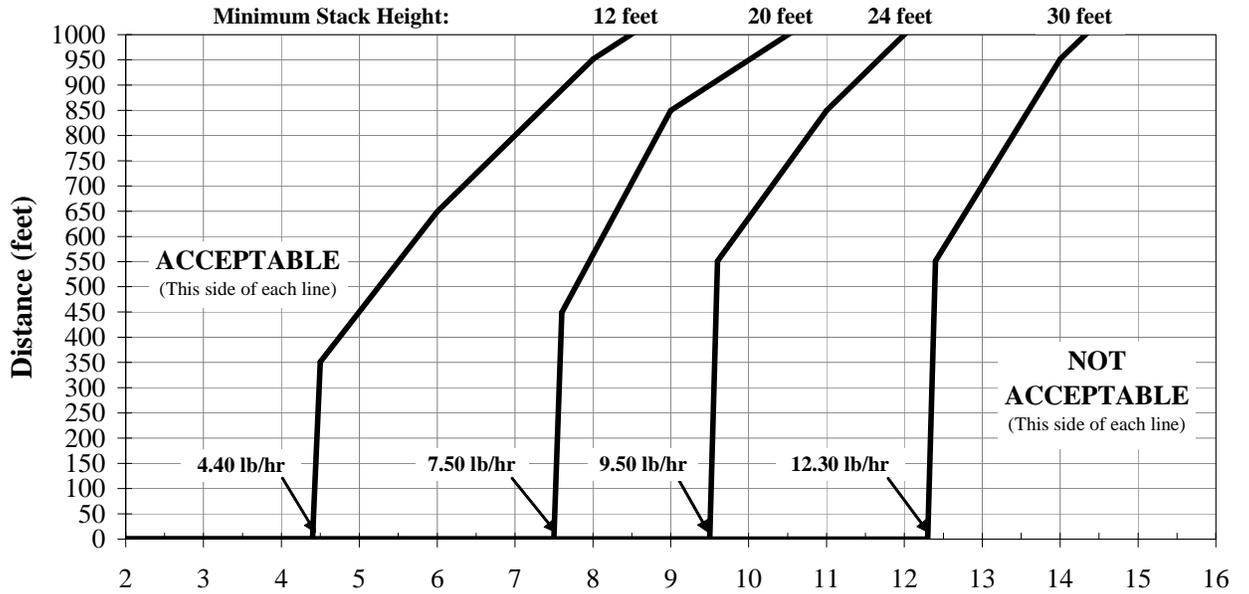


Figure 1: Site-wide Ammonia Emissions (lb/hr)

# Temporary Polyphosphate Blenders

Required Minimum Setback Distance

Minimum Exit Flow Rate: 28,000 acfm

Maximum Exit Stack Diameter: 9 feet

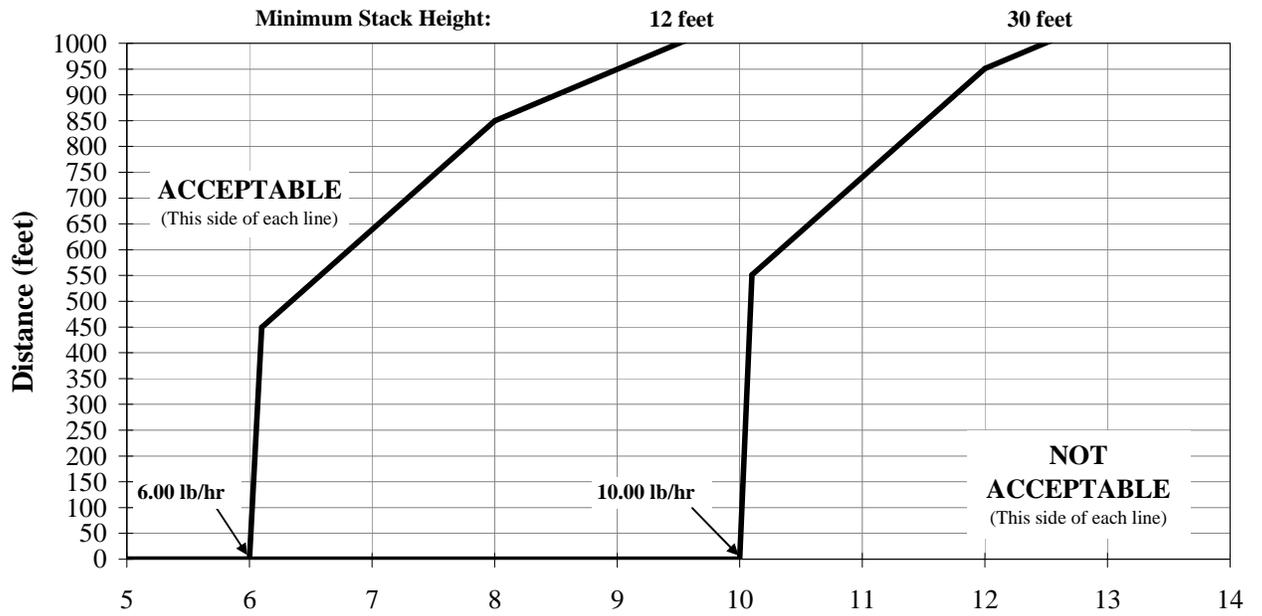


Figure 2: Site-wide Ammonia Emissions (lb/hr)

# Combined Temporary Polyphosphate Blenders and Anhydrous Ammonia Storage and Distribution Operations

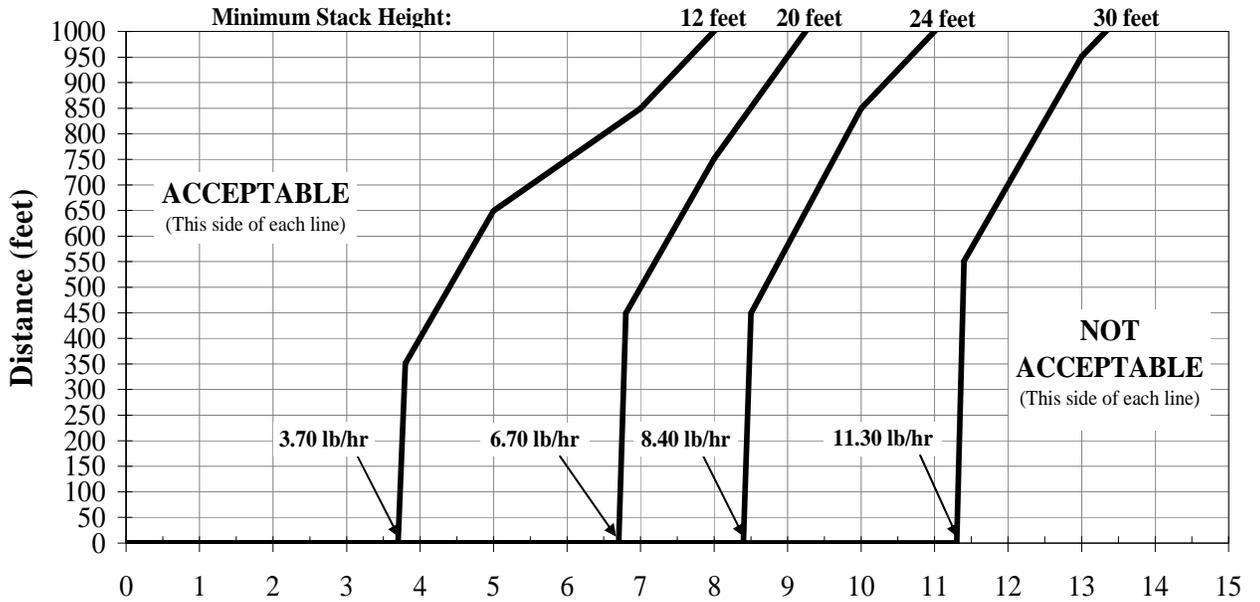
**Required Minimum Setback Distance**

**Minimum Exit Flow Rate: 15,080 acfm**

**Maximum Exit Stack Diameter: 4 feet**

Emission rates indicated on graph are for the polyphosphate blender stack.

Maximum allowable ammonia emissions from storage and distribution fugitives = 0.65 lb/hr

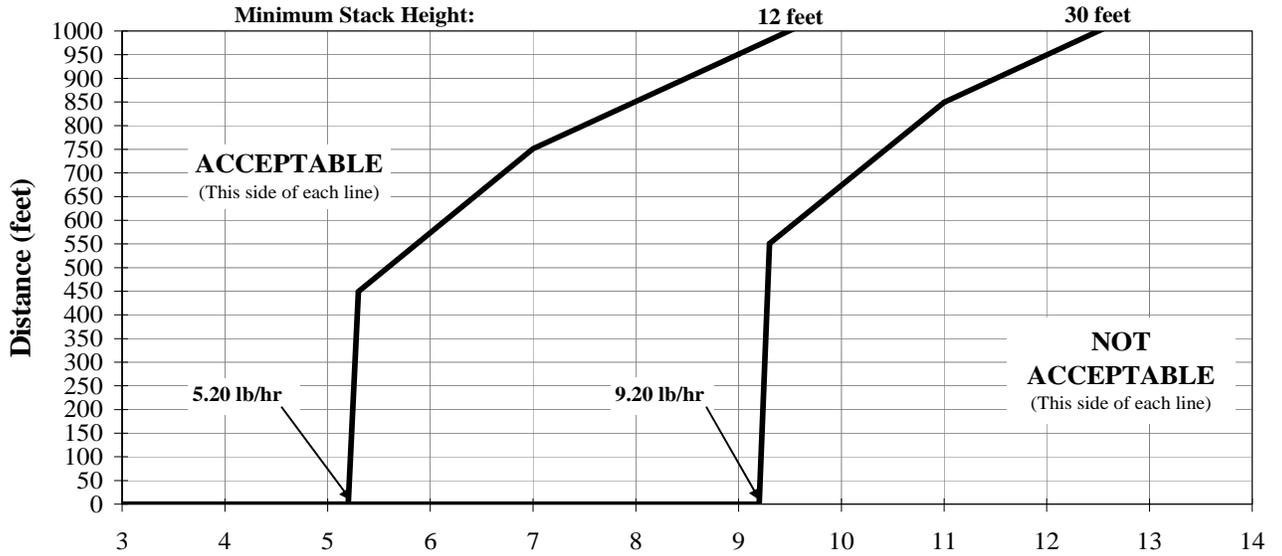


**Figure 3: Polyphosphate Blender Stack Ammonia Emissions (lb/hr)**

# Combined Temporary Polyphosphate Blenders and Anhydrous Ammonia Storage and Distribution Operations

**Required Minimum Setback Distance**  
**Minimum Exit Flow Rate: 28,000 acfm**  
**Maximum Exit Stack Diameter: 9 feet**

Emission rates indicated on graph are for the polyphosphate blender stack.  
 Maximum allowable ammonia emissions from storage and distribution fugitives = 0.65 lb/hr



**Figure 4: Polyphosphate Blender Stack Ammonia Emissions (lb/hr)**

# Temporary or Permanent Polyphosphate Blenders

Required Minimum Setback Distance

Minimum Exit Flow Rate: 50 acfm

Maximum Exit Stack Diameter: 8 inches

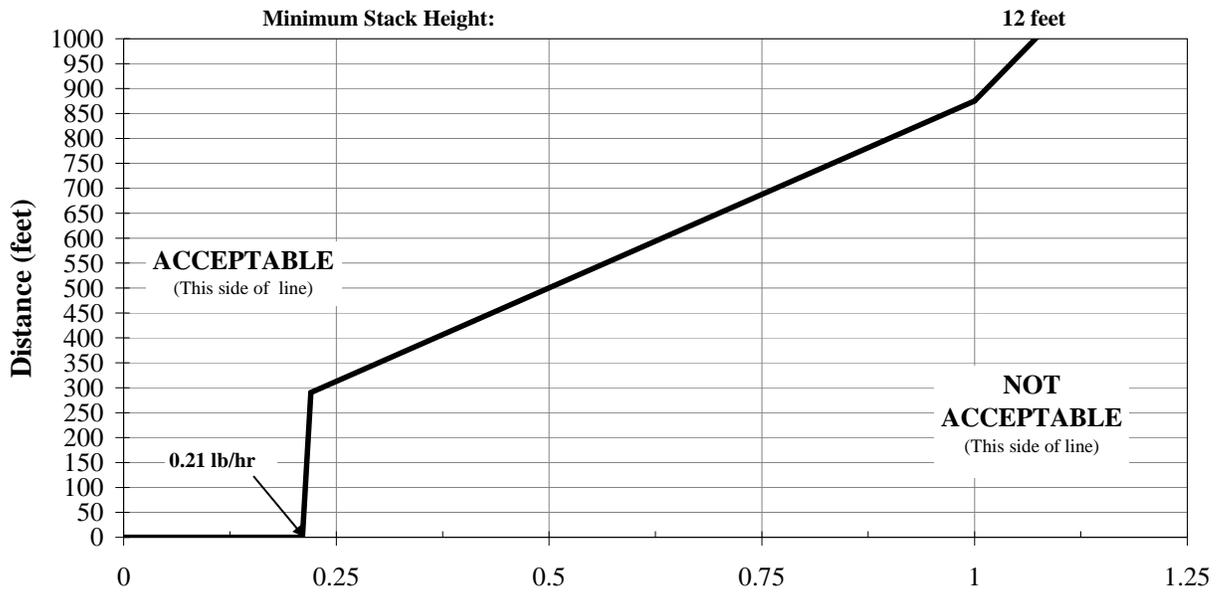


Figure 5: Site-wide Ammonia Emissions (lb/hr)

## Combined Temporary or Permanent Polyphosphate Blenders and Anhydrous Ammonia Storage and Distribution Operations

### Required Minimum Setback Distance

Minimum Exit Flow Rate: 50 acfm

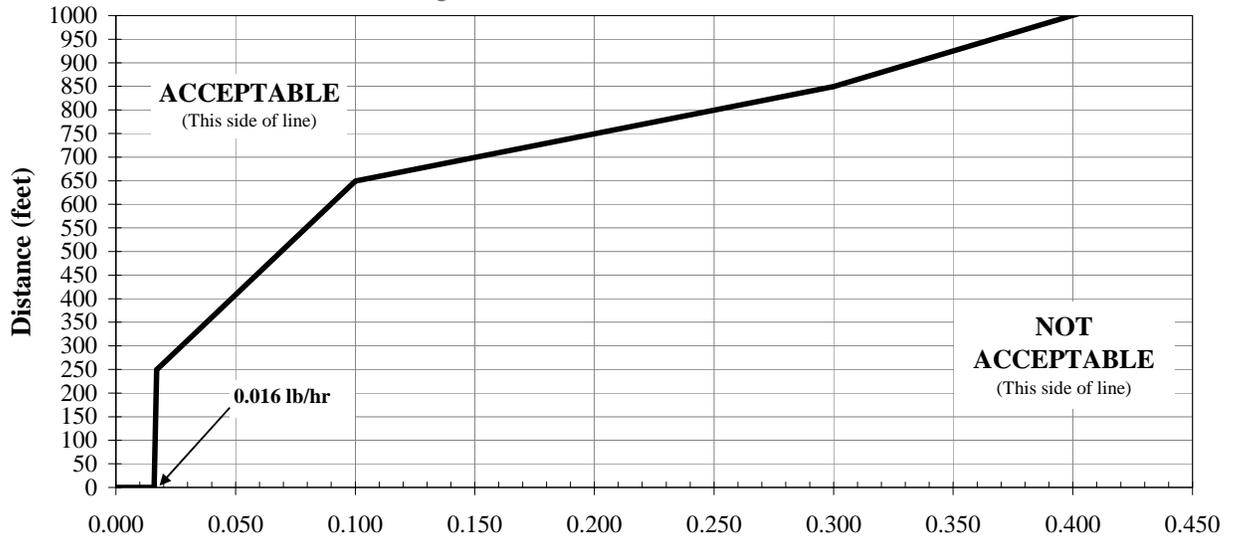
Maximum Exit Stack Diameter: 8 inches

Emission rates indicated on graph are for the polyphosphate stack.

Maximum allowable ammonia emissions from storage and distribution fugitives = 0.65 lb/hr

Minimum Stack Height:

12 feet



**Figure 6: Polyphosphate Blender Stack Ammonia Emissions (lb/hr)**

# Permanent Polyphosphate Blenders

Required Minimum Setback Distance

Minimum Exit Flow Rate: 15,080 acfm

Maximum Exit Stack Diameter: 4 feet

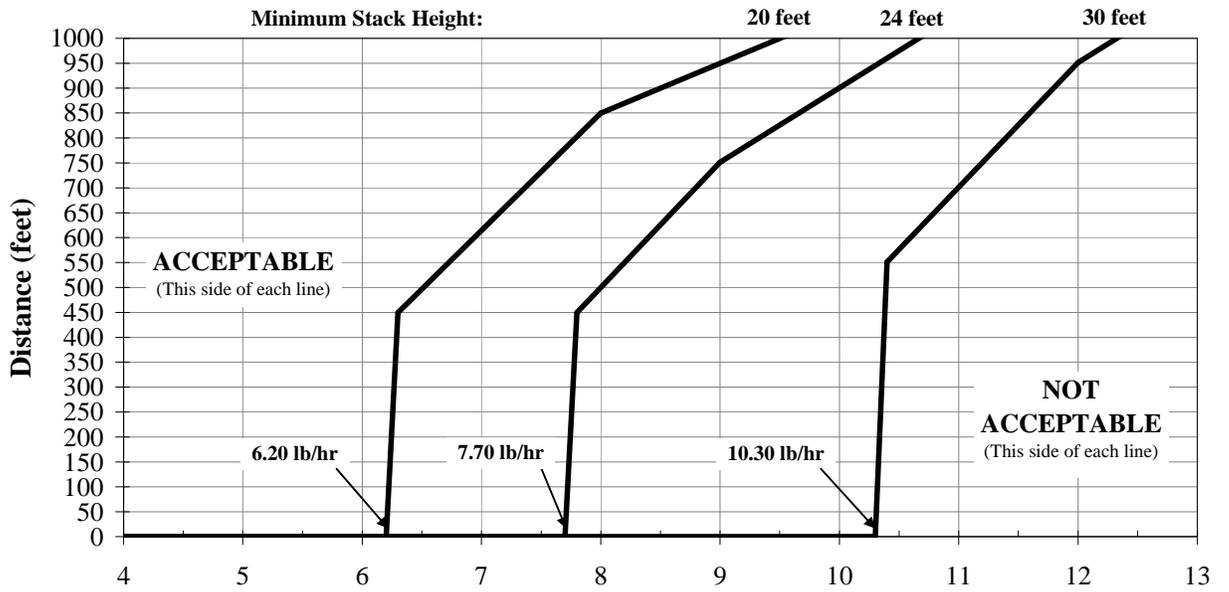


Figure 7: Site-wide Ammonia Emissions (lb/hr)

