TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AGENDA ITEM REQUEST

AGENDA REQUESTED: March 30, 2010

DATE OF REQUEST: March 11, 2010

NAME & NUMBER OF PERSON TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Michael Wilhoit, 239-1222

CAPTION: Docket No. 2010-0191-AIR. Consideration of the issuance of a new air quality standard permit under 30 TAC Chapter 116, Subchapter F, Standard Permits. The new standard permit would authorize Anhydrous Ammonia Storage and Distribution Operations. Notice of the proposed standard permit was published in the November 6, 2009, issue of the *Texas Register* (34 TexReg 7845). (Michael Wilhoit, Christine Angeletti)

Deputy Director

Division Director

Agenda Coordinator

Copy to CCC Secretary? NO___ YES_X

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** March 11, 2010

Thru: LaDonna Castañuela, Chief Clerk
Mark R. Vickery, P.G., Executive Director

From: Richard A. Hyde, P.E., Deputy Director
Office of Permitting and Registration

Subject: Air Quality Standard Permit for Anhydrous Ammonia Storage and Distribution Operations
Docket No. 2010-0191-AIR

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Background

Staff is recommending issuance of a new air quality standard permit for anhydrous ammonia storage and distribution operations, one of several new standard permits which would cover a variety of agricultural processes. The other agricultural standard permits in this group could be used to authorize the following types of agricultural facilities: dry bulk fertilizer handling operations; cotton gins and cotton burr grinders; feedmills, portable augers, and hay grinders; grain elevators, portable grain augers, and grain handling operations; and polyphosphate blending operations. These standard permits for agricultural facilities have been developed to provide a streamlined method of authorizing these types of operations while ensuring that human health and the environment are protected. The proposed standard permits could be used to authorize new or existing non-major sources meeting all applicable conditions of the relevant standard permit. The proposed standard permit for anhydrous ammonia storage and distribution operations includes permit terms and conditions concerning operating requirements, control requirements, and distance limitations, which, in combination, would be protective of human health and welfare. Please refer to the technical summary document for detailed information concerning the standard permit requirements. The actual permit text is located at the end of the technical summary document.

Key Provisions of the Standard Permit

- Authorizes the air emissions (including fugitive emissions) associated with anhydrous ammonia storage and distribution operations (including portable nurse tanks stored on site) that meet the applicable conditions of the standard permit.
- Prohibits sources which would be major under federal New Source Review (NSR).
- Requires a minimum setback from property line that is based on the emission rate of the facility.
- Improves operational flexibility by allowing higher emission rates at sites which have more distance around the facility.
- Contains technical requirements representing Best Available Control Technology to

control ammonia emissions and prevent nuisance conditions.

- Does not require registration or fees. However, does require notification to the regional office.
- Includes maintenance, startup, and shutdown emissions.
- Requires recordkeeping to ensure compliance with emission/distance limits and with periodic equipment inspection requirements.

Response to Comments and Significant Changes

Stakeholder meetings on the draft standard permit were held in Austin on November 12, 2007, and in Lubbock, Texas on November 14, 2007. The standard permit was formally proposed on November 6, 2009. A public meeting on the proposed standard permit was held in Austin on December 10, 2009. During the public comment period which closed on December 15, 2009, the Air Permits Division received comments from the Texas Cotton Ginners' Association (TCGA) and the U.S. Environmental Protection Agency (EPA). The most significant comments are summarized in this section.

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- EPA commented that the permit should include even stronger language compelling the facility to ensure that the site does not exceed federal major NSR levels. **The staff did not revise the permit in this regard because the proposed language already is very explicit in disallowing the use of the standard permit for a project that is major, or at a site that is major.**

- EPA stated that the permit must contain an enforceable annual ammonia limit to ensure compliance with all emissions including startup, shutdown, and maintenance emissions. EPA commented that a permit condition must also state that any excess emissions exceeding the short term hourly rate are in violation of the permit to ensure operations do not result in high emission peaks. **Subsection (1)(F) of the standard permit already stipulates that site-wide emissions must meet the applicable emission rate requirement. However, the commission has added a permit condition that states that emissions that exceed the permit limits are violations of the permit. With regard to an annual ammonia limit, it is not clear what purpose establishing an annual limit for ammonia would achieve. The standard permit contains short-term hourly emission limits that are protective of human health, and are sufficiently low in magnitude that Federal New Source Review (FNSR) major source concerns would not appear to be an issue. Ammonia emissions from planned startup, shutdown, and maintenance activities are covered by and are subject to these emission limits.**

- EPA suggested a provision stating any noncompliance with the permit, constitutes a violation of the SIP and state law and is grounds for an enforcement action, for permit suspension, or revocation, or for denial of a renewal application. EPA stated that the

permit must contain reporting requirements for noncompliance. **The staff added a condition to state that noncompliance with permit emission limits is a violation, but did not add mandatory self-reporting of noncompliance to the permit.**

- The TCGA submitted general comments supporting this standard permit.

Potentially Controversial Matters

None.

ANHYDROUS AMMONIA STORAGE AND DISTRIBUTION OPERATIONS
AIR QUALITY STANDARD PERMIT SUMMARY DOCUMENT

I. EXECUTIVE SUMMARY

The Texas Commission on Environmental Quality (TCEQ or commission) issues a new air quality standard permit for anhydrous ammonia storage and distribution operations. The new standard permit can be used to authorize anhydrous ammonia storage and distribution operations on or after the effective date of the standard permit.

II. EXPLANATION AND BACKGROUND OF AIR QUALITY STANDARD PERMIT

The New Source Review (NSR) Program under Title 30 Texas Administrative Code (30 TAC) Chapter 116, Control of Air Pollution by Permits for New Construction or Modification, requires any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of the state to obtain a permit pursuant to 30 TAC §116.111, General Application, or satisfy the conditions of a standard permit, a flexible permit, a permit by rule, or the criteria for a de minimis facility or source before any actual work begins on the facility. A standard permit authorizes the construction or modification of new or existing facilities which are similar in terms of operations, processes, and emissions. A standard permit provides an efficient mechanism for qualifying facilities to obtain authorization as an alternative to a case-specific air quality permit.

The standard permit provides a streamlined preconstruction authorization process that can be used for any anhydrous ammonia storage and distribution operation complying with the standard permit requirements and that is not prohibited by some other state or federal permitting statute or regulation. Additionally, the executive director authorizes anhydrous ammonia storage and distribution operations through permit by rule (PBR) under 30 TAC §106.477, Anhydrous Ammonia Storage or under 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification. PBR §106.477 will remain an authorization mechanism for anhydrous ammonia storage and distribution operations.

The commission has included requirements to minimize emissions and establish property line distance limitations. These requirements are based on air dispersion modeling and an impacts analysis performed to verify the protectiveness of the standard permit. Additionally, the standard permit contains requirements that implement best available control technology (BACT), which is required under Texas Health and Safety Code (THSC), §382.0518(b), Preconstruction Permit and §382.05195(a), Standard Permit. The site-wide ammonia emission rate will determine the setback distance that is necessary to ensure that the effects screening level (ESL) for ammonia is not exceeded. The standard permit also includes control provisions. The commission has concluded an evaluation that shows that the standard permit for anhydrous storage and distribution operations is protective of the public health and welfare.

The modeling results demonstrated that an anhydrous ammonia storage and distribution operation with site-wide emissions of anhydrous ammonia less than or equal to 0.65 pound per hour (lb/hr) does not require a setback distance from the property line. For site-wide emissions greater than 0.65 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line required to ensure that the total site-wide allowable anhydrous ammonia emissions do not exceed the ESL off property.

III. OVERVIEW OF AIR QUALITY STANDARD PERMIT

The commission issues this air quality standard permit authorizing anhydrous ammonia storage and distribution operations under the authority of the Texas Clean Air Act (TCAA) in THSC, §382.05195, Standard Permit and 30 TAC Chapter 116, Subchapter F, Standard Permits.

The standard permit authorizes typical anhydrous ammonia storage and distribution operations used for agricultural handling and distribution, including portable nurse tanks stored on site. However, the standard permit is not intended to cover all possible facility configurations or operating scenarios. Owners or operators of facilities that cannot meet the standard permit conditions may apply for a case-by-case air quality permit under 30 TAC §116.111, General Application, or other applicable authorization mechanism.

IV. PERMIT CONDITION ANALYSIS AND JUSTIFICATION

This standard permit requires owners or operators of anhydrous ammonia storage and distribution operations to comply with certain administrative requirements, including regional notification and recordkeeping, as well as general requirements, including housekeeping procedures, best management practices, planned maintenance, start-up, and shutdown (MSS) limitations, and specific operating procedures to minimize off-property impacts from anhydrous ammonia storage and handling. Facilities are also required to meet distance requirements to be within acceptable off-property concentrations of ammonia. Registration or renewal of registration every ten years is not required.

This standard permit authorizes the air emissions (including fugitive emissions) associated with anhydrous ammonia storage and distribution operations (including portable nurse tanks stored on site) that meet the applicable conditions of the standard permit.

Applicability

Section (1) outlines the applicability of the standard permit (what can and cannot be authorized under the standard permit). Subsection (A) specifies that this standard permit authorizes air emissions from anhydrous ammonia storage and distribution operations, including portable nurse tanks stored on site and any fugitive emissions associated with the storage and distribution operation. This condition is intended to specify the scope of the standard permit authorization.

Subsection (B) prohibits the use of this standard permit to authorize any anhydrous ammonia storage and distribution operation if any facilities are used for the on-site manufacturing of ammonia, the on-site manufacturing of any other ammonia products (with the exception of polyphosphate blenders used to make liquid fertilizer), or located at a site where the anhydrous ammonia is used for purposes other than agricultural handling and distribution. This condition helps ensure that cumulative emissions do not result in adverse off-property impacts since the emissions from these other facility types (with the exception of polyphosphate blenders) were not evaluated in conjunction with the emissions from anhydrous ammonia storage and distribution operations as part of the protectiveness review for this standard permit. Any on-site polyphosphate blender must acquire authorization through a 30 TAC Chapter 116 air quality permit or other applicable authorization mechanism.

Subsection (C) prohibits the use of this standard permit for any facility that constitutes a new major stationary source or major modification as defined by 30 TAC Chapter 116. This standard permit also cannot be used for authorization of facilities located at a major stationary source. The restrictions in subsections (B) and (C) regarding use of the standard permit are based on concerns associated with large facility capacities, throughputs, and emission rates, in addition to health effects guideline exceedances and increased disaster potential inherent with anhydrous ammonia storage and handling. This standard permit authorizes smaller agricultural distribution operations and not large operations used in the manufacture of ammonia-based products. Additionally, 30 TAC Chapter 116 does not allow facilities defined as major with regard to federal NSR to be authorized by a standard permit.

Subsection (D) prohibits the use of this standard permit to authorize any increase of an air contaminant specifically prohibited by a 30 TAC Chapter 116 air quality permit that exists at the site.

Subsection (E) specifies that this standard permit cannot be used in conjunction with any other Chapter 116 air quality permit, standard permit, or PBR, with the exception of standard permits and PBRs used to authorize planned maintenance activities and facilities. The entire anhydrous ammonia storage and distribution operation must be authorized under this standard permit. If other authorizations for the operation exist, these authorizations must be voided if authorization under this standard permit is to occur. This requirement does not preclude the use of permits, standard permits, and PBRs to authorize other facilities, located at the site, that are not associated with the anhydrous ammonia storage and distribution operation. However, all site-wide emission limitations in this standard permit must be met. Subsection (E) also states that associated polyphosphate blenders are not prohibited, although any on-site polyphosphate blenders must have authorization through a 30 TAC Chapter 116 air quality permit or other applicable authorization mechanism. The restrictions in subsections (D) and (E) are included to limit the cumulative effects of specific contaminants and to ensure the protection of health and human welfare. Subsection (E) does allow standard permits and PBRs to be used in conjunction with this standard permit if the standard permits and PBRs are used to authorize emissions from planned maintenance activities and facilities

as specified in section (6) of this standard permit. Additional information regarding the authorization of planned maintenance, start-up, and shutdown emissions can be found in the Planned Maintenance, Start-up, and Shutdown (MSS) Activities portion of this technical summary.

Subsection (F) specifies that this standard permit cannot be used if the total site-wide emissions do not meet the emission rate requirements specified in sections (5) and (6) of this standard permit. This includes ammonia emissions from all facilities at the site, even facilities that are not associated with the anhydrous ammonia storage and distribution operation. This condition limits cumulative emissions and reinforces the site-wide emission rate requirements in sections (5) and (6) to maintain the protectiveness of this standard permit.

Subsection (G) prohibits the use of this standard permit to authorize on-site polyphosphate blenders. Any on-site polyphosphate blender (even when being supplied with product from an anhydrous ammonia storage and distribution operation authorized by this standard permit) must be authorized by a 30 TAC Chapter 116 air quality permit or other applicable authorization mechanism. This condition specifies and limits the scope of this standard permit.

Definitions

Section (2) contains definitions of anhydrous ammonia, anhydrous ammonia storage and distribution operation, polyphosphate blender, and site in subsections (A) through (D). Although polyphosphate blenders cannot be authorized under this standard permit, the definition was included because a polyphosphate blender may be located on the same site as an anhydrous ammonia storage and distribution operation since the anhydrous ammonia used by the polyphosphate blender may be supplied by the storage and distribution operation. These definitions are intended to specify and, where necessary, limit the scope of the standard permit's authorization. Permitting is based on the concepts of facility, facilities, related facilities, and related increases, which may involve equipment throughout a given site. Many aspects of permitting are evaluated on a site basis to account for all sources of pollutants that may impact surrounding areas.

General Administrative Requirements

Section (3) addresses the administrative requirements associated with this standard permit. Subsection (3)(A) refers owners and operators to section (5) of this standard permit, which contains specific notification requirements for anhydrous ammonia storage and distribution operations. This subsection was included in one of the first sections of the standard permit as a notice to owners and operators that action is necessary on their part to comply with the administrative requirements.

All standard permits must meet the requirements in 30 TAC Chapter 116, Subchapter F (including §§116.604 through 116.615). However, the TCEQ can waive or modify some of these requirements and has elected to do so for this standard permit. Section 116.610(a)(1), Applicability, requires that a standard permit project resulting in a net emission increase must meet the emission limitations of 30 TAC §106.261, Facilities

(Emission Limitations), unless otherwise specified in the standard permit. Anhydrous ammonia storage and distribution operations do not emit significant amounts of the kinds of air contaminants that 30 TAC §106.261 addresses. In addition, the commission has determined that the industry specific emission rate limitations and distance requirements in this standard permit justify this exemption from 30 TAC §106.261. Therefore, in subsection (3)(B), the TCEQ exempts anhydrous storage and distribution operations authorized under this standard permit from the requirements of 30 TAC §116.610(a)(1).

Subsection (3)(B) also exempts facilities meeting the applicable requirements of this standard permit from registration, fee, and start-up notification requirements in 30 TAC §§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). The exemption from the registration requirements in 30 TAC §116.611 only addresses §116.611(a) and (b) and does not exempt a source owner or operator from the requirement to submit a certified registration under §116.611(c), which is required to avoid the applicability of 30 TAC Chapter 122, Federal Operating Permits Program. Through the protectiveness review, the commission has determined that facilities meeting all of the applicable requirements of this standard permit will be protective of health and human welfare, and individual review of registrations by TCEQ staff is not necessary.

General Operating Requirements

Section (4) contains the general operating requirements that must be met by all anhydrous ammonia storage and distribution operations seeking authorization under this standard permit. Due to the disaster potential associated with these types of storage and distribution operations, subsection (A) requires that all facilities authorized by this standard permit be operated in accordance with a mitigation plan. The mitigation plan must be kept on site and be accessible at all times. This plan must describe the methods and procedures utilized by the facility operators to reduce the risk of a catastrophic release of anhydrous ammonia from traveling off site. The plan must include precautionary controls, including (but not limited to) sprinkler systems, lock-out systems, and barricades around the permanent storage tanks. This subsection also mentions the use of additional precautionary controls that may be included in (but are not specifically required by) the mitigation plan. Additional precautionary controls may include fire extinguishers, dikes, and alarms. The distinction between those controls that must be part of the mitigation plan and those that are not specifically required was added for the consideration of operators due to the disaster potential but also to allow operators the flexibility in determining the level of controls. The required controls are referenced in the Environmental Protection Agency (EPA) Prevention Reference Manual: Chemical Specific, Volume 11. Control of Accidental Releases of Ammonia. Authorization under this standard permit does not exempt facilities from other applicable regulations (including any federal reporting requirements).

Subsection (B) requires that all facilities authorized by this standard permit be operated in accordance with a contingency plan should there be a sudden release of anhydrous ammonia. The contingency plan must describe the actions taken by facility operators to notify persons in the immediate area of a sudden release of anhydrous ammonia. The

plan must include procedures to contact police and fire departments and must discuss emergency protocol by employees and the installation of special equipment to prevent anhydrous ammonia vapors from becoming airborne. Just like the mitigation plan, the contingency plan must be kept on site and be accessible at all times.

To reduce the potential for nuisance odors and to ensure proper storage of this chemical, subsection (C) requires that all valves, connectors, flanges, and hoses associated with anhydrous ammonia handling authorized by this standard permit be properly maintained in leak-proof condition at all times.

To keep anhydrous ammonia vapors from being emitted to the atmosphere, subsections (D) and (E) require the use of common and effective work practices. Subsection (D) requires that all vapors be vented back to the host tank when transferring anhydrous ammonia. Subsection (E) requires that all anhydrous ammonia vapors be bled into an adequate volume of water and never released to the atmosphere when relieving pressure from connectors and hoses associated with permanent anhydrous ammonia storage tanks and any nurse tanks authorized by this standard permit. The water discussed in subsection (E) must never be saturated with ammonia and should always have enough volume capable of absorbing the ammonia vapors being bled into it.

Subsection (F) requires that each permanent anhydrous ammonia storage tank and any nurse tanks authorized by this standard permit and stored on site be equipped in such a manner to prevent unauthorized access. This subsection does not specify methods for preventing unauthorized access in order to allow individual operators the flexibility to make their own assessment of their facilities; however, these methods may include locks, alarms, or other similar devices.

Vehicular traffic represents one of the greatest potentials for a catastrophic release. Based on this assessment, subsection (G) specifies that a barrier be erected and maintained around the permanent anhydrous ammonia storage authorized by this standard permit tanks to prevent accidental ruptures from vehicular traffic.

Subsection (H) requires the installation of a water spray system to minimize and suppress ammonia emissions in the event of a release from or rupture of any of the permanent storage tanks authorized by this standard permit.

To further prevent leaks from permanent storage tanks and any nurse tanks stored on site, subsection (I) addresses audio, visual, and olfactory (AVO) checks for facilities authorized by this standard permit. Operators are required to perform AVO checks for anhydrous ammonia leaks once per day during normal business hours within the operating areas and within the nurse tank storage areas. Should a leak be detected, immediately, but no later than five hours upon detection of the leak, plant personnel must isolate the leak and commence repair or replacement of the leaking component. If immediate repair (as specified in this subsection) is not possible, a leak collection or containment system must be used to prevent the leak until repair or replacement can be

made. Permanent repair or replacement must be made within 15 days of detection of the leak.

Subsection (J) specifies that each nurse tank stored on site shall not contain anhydrous ammonia in a quantity greater than one percent of the total nurse tank capacity, which also helps to reduce the disaster and odor nuisance potentials. This subsection was revised from requiring that all nurse tanks contain no anhydrous ammonia while stored on site. After further evaluation, the commission has determined that nurse tanks typically retain some residual amount of anhydrous ammonia after use. Therefore, a limit determined to be minimal (based on the nurse tank capacity) was selected.

Housekeeping requirements are specified in subsection (K). This subsection requires the maintenance of on-site roads and other traffic areas to be conducted as necessary through the sprinkling of water, treatment with effective dust suppressants, and/or paving with a cohesive hard surface that is cleaned. The best management practices in this subsection help minimize the potential for off-property nuisance dust conditions resulting from roads and other traffic areas. The requirements in subsection (K) do not exempt anhydrous ammonia storage and distribution operations from the requirements in 30 TAC §101.4, Nuisance.

Subsection (L) requires that all emission control equipment be properly maintained and operated, which includes scheduled maintenance as recommended by the manufacturer and as necessary to adequately maintain equipment and control efficiency.

The requirements in subsections (A) through (L) represent BACT and will ensure proper storage of anhydrous ammonia, reduce anhydrous ammonia emissions to minimize nuisance odor potential, reduce the probability of a catastrophic release, and protect human health and welfare. The TCAA and 30 TAC Chapter 116 require that standard permits apply BACT. Subsections (A) through (L) were obtained from existing case-by-case NSR permits for anhydrous ammonia storage and distribution operations and represent BACT for this industry.

Subsection (M) requires that all facilities and associated equipment authorized by this standard permit, including any transfer equipment, be maintained in good working order and operated properly. This requirement is included to ensure that all processing equipment is properly operated and maintained to minimize nuisance potential and further reduce the potential for a catastrophic release of ammonia.

Subsection (N) addresses all recordkeeping requirements for facilities authorized by this standard permit. All records must be kept 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. Paragraph (N)(i) requires recordkeeping of all repairs and replacements made to equipment associated with the storage and handling of anhydrous ammonia. Paragraph (N)(ii) requires recordkeeping of all AVO checks for anhydrous ammonia. Paragraph (N)(ii) further specifies that the AVO records include dates, times, and results of the checks to demonstrate compliance with paragraph (4)(I)(i)

of this standard permit. Paragraph (N)(iii) specifies recordkeeping of leak repairs and replacements to demonstrate compliance with paragraph (4)(I)(ii) of this standard permit. Paragraph (N)(iv) requires documentation of the different types, service, and quantity of valves, seals, flanges, and open-ended lines for all of the on-site permanent anhydrous storage tanks. Paragraph (N)(v) requires the owner or operator to maintain all records sufficient to demonstrate that the anhydrous ammonia storage and distribution operation is meeting all applicable emission rate and property line minimum setback distance limitations determined by using Figure 1 of this standard permit. This paragraph is used in conjunction with paragraph (N)(iv) and further clarifies that all records must be maintained to demonstrate the operation's continued compliance with the emission rates and corresponding setback distances in Figure 1 of this standard permit. Paragraph (N)(vi) requires that records of scheduled maintenance of control equipment be kept. These records must be maintained to demonstrate compliance with subsection (L) of this standard permit. Paragraph (N)(vii) requires recordkeeping regarding planned MSS facilities and activities to demonstrate compliance with the operational requirements (material usage rates and emission rate limitations) in paragraphs (6)(C)(i) through (6)(C)(iv) of this standard permit.

The parameters required in paragraphs (N)(iv) and (N)(v) of this standard permit, in conjunction with previously determined emission factors, are used to calculate the maximum allowable short-term emission rates of ammonia due to everyday working losses from the permanent storage tanks. The maximum number of valves, seals, flanges, and open-ended lines for each permanent anhydrous ammonia storage tanks shall not exceed the quantities necessary for an anhydrous ammonia storage and distribution operation to remain below the ESL for ammonia determined by using Figure 1 of this standard permit. Figure 1 shows the maximum short-term emission rates allowed for a specific setback distance of facility emission points to the nearest point on the nearest property line. A specific setback and emission rate correlate to a point on the graph that will either fall in the "acceptable" area of the graph or on the dividing line. To ensure compliance with this standard permit, owners and operators must demonstrate that emission rates and setbacks are inside the "acceptable" area of the graph or on the dividing line. Should the point for an emission rate and setback fall in the "unacceptable" area of the graph, the setback must be increased or the emission rate reduced. Additional information regarding the modeling used to develop Figure 1 can be found in the Protectiveness Review portion of this technical summary.

Requirements Specific to an Anhydrous Ammonia Storage and Distribution Operation (New, Modified, or Existing)

Section (5) of this standard permit addresses new, modified, or existing anhydrous ammonia storage and distribution operations. Paragraph (A)(i) requires the use of calculation methods accepted by the TCEQ at the time of the standard permit claim to determine emission rates.

Anhydrous ammonia storage and distribution operations meet the conditions of paragraph (A)(ii) if the total ammonia emissions from the site, including emissions from facilities and activities as specified in section (6) of this standard permit, do not exceed 0.65 lb/hr.

The total ammonia emissions may exceed 0.65 lb/hr if all facility emission points, including facilities and activities as specified in section (6) of this standard permit, emitting ammonia at the site meet the specified minimum setback distance to the property line required to not exceed the ESL for ammonia as determined by using Figure 1. The emission rates and setback distance requirements in Figure 1 were determined through current modeling techniques and will be discussed further in the Protectiveness Review portion of this technical summary. All ammonia emission rates referenced in subsection (A) are site-wide; therefore, ammonia emissions from any other facilities or sources at the site must be included when determining the required minimum setback distance and qualification for this standard permit. Subparagraph (A)(ii)(b) also includes a clarification that the minimum setback distance to the property line 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 (i.e., the nearest corresponding property line). All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 1 of this standard permit.

Subsection (B) limits the total site-wide emissions from the anhydrous ammonia storage and distribution operation to 0.65 lb/hr if a polyphosphate blender is located on site. This emission rate limitation was included to limit the cumulative effects of ammonia, ensure the ESL for ammonia will not be exceeded, and ensure the protection of health and human welfare. Additional information regarding the modeling used to determine this limitation can be found in the Protectiveness Review portion of this technical summary. This standard permit is not intended to authorize any polyphosphate blender operations on site. These operations must meet the requirements in an applicable standard permit or PBR or acquire authorization through a case-by-case Chapter 116 air quality permit.

Subsection (C) requires written notification be submitted to the appropriate TCEQ regional office for an anhydrous ammonia storage and distribution operation to be considered authorized by this standard permit. A response by the regional office is not required prior to the operation of the anhydrous ammonia storage and distribution facilities. Due to the inherent disaster potential associated with these facilities, subsection (C) aids TCEQ regional staff by notifying them as early as possible regarding the movement of facilities in and out of their respective regions.

Subsection (D) specifies that registration is not required. To streamline the permitting process and allocate resources to more complex and controversial permitting projects, these facilities were evaluated to determine whether storage and distribution operations meeting all of the applicable requirements of this standard permit could be exempt from the registration process. Based on the review of existing permits, discussions within affected areas of the TCEQ, and the emission rate limitations and distance requirements determined to be protective through the modeling, the commission determined that registration is not required.

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

Section (6) of this standard permit addresses emissions from planned MSS activities from those facilities authorized by this standard permit. Subsection (A) specifies that emissions from planned start-up and shutdown activities are authorized by this standard permit. Start-up and shutdown emissions are virtually indistinguishable from production emissions. Although there may be minor emissions associated with start-up and shutdown, the synthetic organic chemical manufacturing industry (SOCMI) emission factors used to quantify production emissions are considered to have enough conservatism to include any incidental increases that may be attributed to start-up and shutdown. Start-up and shutdown emissions for anhydrous ammonia storage and distribution operations were evaluated through air dispersion modeling, and when combined with production emissions, all emissions were determined to be protective provided that the operation is in compliance with all requirements of the standard permit.

Emissions from specific planned maintenance activities are authorized by this standard permit, and these activities are listed in subsection (B). The planned maintenance activities and facilities listed in this subsection apply to those anhydrous ammonia storage and distribution operations authorized by this standard permit. After discussions with industry representatives, a list of common maintenance activities and facilities was developed, and the frequency and timing of the maintenance activities was also determined. Common maintenance activities and facilities authorized by this standard permit include abrasive blasting, surface preparation, surface coating, compressors/pumps/engines, hand-held or manually operated equipment, vacuum cleaning systems, hydraulic oil filtering, lubrication, and brazing/soldering/welding/metal cutting equipment. Emissions from the activities listed in subsection (B) are expected to be protective due to the operational requirements and site-wide emission rate limitations specified in subsection (6)(C) of this standard permit.

The operational requirements in subsection (C) consist of site-wide material usage rate limitations for abrasives, solvents, lubricants, coatings, dyes, bleaches, fragrances, and water-based surfactants and detergents; restrictions on planned maintenance activities occurring simultaneously with each other and with ammonia transfer operations; and site-wide emission rate limitations for lead and all other contaminants associated with planned maintenance activities. The material usage limitations have been previously evaluated and are considered de minimis, and the emission limitations for lead (0.6 tons per year) and all other contaminants (25 tons per year or less for any one contaminant) are considered insignificant and consistent with emission rate limitations in current PBRs. The material usage and emission rate limitations are also site-wide limitations to minimize cumulative emissions from planned maintenance activities that may be associated with other facilities (not authorized by this standard permit) located at the site. Planned maintenance activities, associated with the facilities or groups of facilities authorized by this standard permit, are not expected to result in adverse cumulative effects due to the restriction of simultaneous maintenance activities and the restriction of those maintenance activities occurring with ammonia transfer operations.

Subsection (D) allows some flexibility to the facility operator regarding planned maintenance activities. Subsection (D) guides the applicant toward alternate methods of

authorization for planned maintenance that cannot meet the requirements of subsections (6)(B) and (6)(C) of this standard permit. Forms of authorization are listed as any applicable PBR, any other applicable standard permit, or a combination of these mechanisms. Even with these options, protectiveness is maintained since planned maintenance activities still cannot occur simultaneously with each other, and cannot occur simultaneously with ammonia transfer operations. Any maintenance, start-up, and shutdown emissions that are not authorized are subject to the applicable requirements of 30 TAC Chapter 101, Subchapter F, Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities.

V. PROTECTIVENESS REVIEW

Anhydrous ammonia is the only pollutant emitted at an anhydrous ammonia storage and distribution site. The predicted concentrations allowed for a facility authorized under this standard permit were compared to the TCEQ ESLs for the one-hour average and the annual average for anhydrous ammonia as part of the protectiveness review.

The ESLs are pollutant-specific guideline concentrations used in TCEQ's effects evaluation of pollutant concentrations in air. These guidelines are developed by the Toxicology Section of the TCEQ Chief Engineer's Office and are based on a pollutant's potential to cause adverse health effects, odor nuisances, and effects on vegetation. Health-based screening levels are set lower than levels reported to produce adverse health effects, and, as such, are set to protect the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions. Adverse health or welfare effects are not expected to occur if the air concentration of a pollutant is below its ESL. If an air concentration of a pollutant is above the screening level, it is not necessarily indicative that an adverse effect will occur, but rather that further evaluation is warranted. The ESL for anhydrous ammonia is 170 micrograms per cubic meter ($\mu g/m^3$) for the one-hour average and 17 $\mu g/m^3$ for the annual average.

The protectiveness review examined worst-case predicted concentrations from anhydrous ammonia storage and distribution operations. The commission used the following modeling assumptions, selections, and techniques:

(1) air dispersion modeling was performed using ISCST3 (version 02035);

(2) modeling was conducted using an emission rate of one lb/hr. The predicted concentrations were scaled to calculate emission rate/setback distances to be less than the anhydrous ammonia one-hour ESL;

(3) the modeling included fugitive emissions from the storage and handling of anhydrous ammonia on site;

(4) the fugitive emissions may be occurring during any hour of the day;

(5) all facilities and equipment at the site were assumed to be within a 59-foot circular area for a conservative estimate of predicted concentrations. The source was modeled as

a circular area source in order to eliminate any bias associated with source configuration and/or wind direction;

(6) a fugitive adjustment factor of 0.6 was applied to the source emission rate in the modeling analysis to account for plume meander at low wind speeds and high atmospheric stability;

(7) rural dispersion coefficients and flat terrain were used in the modeling analysis. The selection of rural dispersion coefficients is conservative because the final results are given in distance required to fall below the anhydrous ammonia one-hour ESL, and the distance to the maximum concentration for rural dispersion is farther than the distance with urban dispersion. Flat terrain is appropriate for modeling low-level fugitive emissions;

(8) there were no downwash structures present for the modeling analysis, since downwash is not applicable for an area source;

(9) the modeling analysis used surface data from Austin and upper air data from Victoria for the years 1983, 1984, 1986, 1987, and 1988. Since the analysis is primarily for short-term concentrations, this five-year data set includes worst-case short-term meteorological conditions that could occur anywhere in the state. The wind directions were used at ten-degree intervals to be coincident with the receptor radials. This would provide predictions along the plume centerline, which is a conservative result; and

(10) a polar receptor grid extending from the edge of the property to 4,300 feet with 100-foot spacing along each ten-degree radial was used in the modeling analysis. This was done to determine the plume centerline concentration.

To ensure that there are no adverse health effects, the commission performed air quality modeling to determine an appropriate setback distance from the site property line for anhydrous ammonia storage and handling equipment and operations. The air quality modeling used in these analyses is typically conservative. Combined with conservative emission rate estimates, the modeling tends to over-predict maximum ground-level concentrations compared to actual monitored concentrations. The commission found that the anhydrous ammonia one-hour ESL is the limiting threshold for anhydrous ammonia storage and distribution operations. Based on modeling anhydrous ammonia, the emissions from an anhydrous ammonia storage and distribution operation were used to establish certain limitations with respect to distances between facilities and the property line as a function of the site-wide emission rate. The modeling results demonstrated that the facilities at an anhydrous ammonia storage and distribution site with site-wide emissions of anhydrous ammonia less than or equal to 0.65 lb/hr do not require a setback distance to not exceed the ESL. For facilities with site-wide emissions of anhydrous ammonia greater than 0.65 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line versus the total site-wide allowable anhydrous ammonia emissions to not exceed the ESL. The modeling report is available upon request.

VI. PUBLIC NOTICE AND COMMENT PERIOD

In accordance with 30 TAC §116.603, Public Participation in Issuance of Standard Permits, the TCEQ published notice of the proposed standard permit in the *Texas Register* and newspapers of the largest general circulation in the following metropolitan areas: Austin, Corpus Christi, Dallas, Houston, Lubbock, and Midland. The date for these publications was November 6, 2009. The public comment period ran from the date of publication until December 15, 2009. Comments on the proposed standard permit were received from the Texas Cotton Ginners' Association (TCGA) and the U.S. Environmental Protection Agency (EPA).

VII. PUBLIC MEETINGS

The TCEQ held a public meeting on the proposed Air Quality Standard Permit for Anhydrous Ammonia Storage and Distribution Operations on December 10, 2009, at 9:30 a.m., at the TCEQ, Building B, Room 201A, 12100 Park 35 Circle, Austin, Texas. There were no formal comments submitted at the public meeting.

VIII. ANALYSIS OF COMMENTS

TCGA indicated support for the proposed standard permit.

The commission appreciates the support.

TCGA commented that the facilities covered by the proposed standard permit have a minor impact, and supported the concept of using a sliding scale for distance limitations based on emission rate.

The standard permit was designed with conditions and requirements that are intended to ensure that the facilities and operations covered by the standard permit will not have a detrimental effect on human health or the environment. The variable distance requirements in the standard permit will allow operational flexibility for owners and operators of authorized facilities while still establishing enforceable emission rates and ensuring that the standard permit is protective.

TCGA commented that the operations covered by the standard permit have many common features, and use standard control methods. TCGA commented that the proposed standard permit has requirements that are similar to case-by-case permits issued for these facilities, and therefore would be protective.

TCGA is correct that many of the facilities and operations covered by the standard permit have similar features and use common control methods. The terms and conditions of the standard permit are intentionally similar to the terms and conditions in case-by-case permits, as standard permits are required by statute to implement BACT and must be protective of human health and the environment.

TCGA commented that the proposed standard permit would substantially reduce the amount of time that TCEQ staff expends reviewing individual permit applications, and streamline the process for the applicants.

The commission agrees that the standard permit will reduce the time and resources that are currently expended to perform case-by-case permit reviews for these types of facilities. The standard permit will provide a streamlined authorization method for the regulated community and will allow the commission to focus resources on reviews of projects that are more environmentally significant.

EPA stated that the standard permit must contain additional language compelling the facility to ensure that the entire site's emissions do not exceed major source threshold levels.

The commission has not changed the standard permit in response to this comment. The standard permit contains a provision that specifies that the standard permit cannot be used to authorize any facility or project that would constitute a new major stationary source or a major modification. The provision further states that the standard permit cannot be used at a major source. This provision is similar to the language in 30 TAC §116.610(b), which EPA approved as a State Implementation Plan (SIP) revision on November 14, 2003 (68 FR 64543). The second part of this provision, which prohibits the standard permit from being used at a major source, is more conservative than is typical of TCEQ practice for standard permits. This provision was added to ensure protectiveness and further minimize concerns about federal applicability, but it is not an express requirement of the SIP or federal regulations concerning federal new source review. Finally, under 30 TAC §116.615(8), owners or operators are required to maintain records sufficient to demonstrate compliance with the applicable standard permit, which includes records to demonstrate that the site is not a major source. The commission believes the restrictions as written in the standard permit combined with the general conditions of 30 TAC §116.615 will be sufficient to allow TCEQ to enforce the condition relating to major source threshold levels.

EPA stated that the permit must contain an enforceable annual ammonia limit to ensure compliance with all emissions including startup, shutdown, and maintenance emissions. EPA commented that a permit condition must also state that any excess emissions exceeding the short term hourly rate are in violation of the permit to ensure operations do not result in high emission peaks.

Subsection (1)(F) of the standard permit already stipulates that site-wide emissions must meet the applicable emission rate requirement. However, the commission has added a permit condition that states that emissions that exceed the permit limits are violations of the permit. Any facility with emissions exceeding the applicable hourly emission rate and not meeting an associated setback distance would not be authorized under the standard permit. With regard to an annual ammonia limit, it is not clear from this comment what purpose establishing an annual emission limit

for ammonia would achieve. As proposed, the standard permit contains short-term hourly emission limits that are protective of human health, and are sufficiently low in magnitude that Federal New Source Review (FNSR) major source concerns would not appear to be an issue. Ammonia emissions from planned startup, shutdown, and maintenance activities are covered by and are subject to these emission limits.

EPA stated that the permit must specify that all equipment within the stationary source should be considered in the emissions determination.

The commission has not changed the standard permit in response to this comment. The Applicability section of the standard permit includes a condition that states that the standard permit cannot be used if the total site-wide emissions do not meet the applicable emission rate requirements. Although this condition does not explicitly refer to "all equipment," it would not be possible to determine total site-wide emissions unless all sources of air pollution were included. Section IV of the permit technical summary, Permit Condition Analysis and Justification, notes that the determination of site-wide emissions includes emissions from all facilities at the site, including facilities that are not associated with the operation being authorized under the standard permit. The terminology used may be slightly different than suggested in EPA's comment, but the language used in the standard permit and technical summary will accomplish the same goal. Note that the term "site" is potentially even broader than the term "stationary source" as a site can include multiple stationary sources.

EPA stated that to ensure enforceability, the permit must contain recordkeeping requirements for the ammonia emission limitations.

The commission has not changed the standard permit in response to this comment. The standard permit as proposed requires that the owner or operator maintain records to demonstrate that the operation meets the applicable emission rate and setback distance requirements. The owner or operator is also required to maintain records of the periodic ammonia leak inspection program.

EPA requested that TCEQ consider a five-year records retention period (instead of the proposed two-year period) to facilitate enforcement of other SIP requirements.

The commission has not changed the standard permit in response to this comment. TCEQ typically uses a two-year (24-month rolling) recordkeeping timeframe in association for non-major forms of authorization such as PBRs and standard permits, unless some other factor justifies a longer retention period. A five-year recordkeeping requirement would be more typical for records associated with federal regulations or a Title V permit. TCEQ is uncertain what other SIP requirements EPA is referring to in this comment. In the absence of more specific rationale to justify a five-year record retention period, TCEQ is electing to maintain the proposed 24-month retention period. However, standard permit holders should

be aware that a five-year record retention period would apply if the standard permit operation is located at a site that is subject to Title V.

EPA requested that TCEQ include a provision stating any noncompliance with the permit constitutes a violation of the SIP and state law and is grounds for an enforcement action, for permit suspension, revocation, or revision, or for denial of a permit renewal application. In addition, EPA stated that the permit must contain reporting requirements for noncompliance with permit terms.

Although the commission's authority to enforce, revoke, revise, or deny a permit is already expressed in other commission rules and Texas statutes, the commission concurs that the permit should contain a provision to clearly state that emissions that exceed the limitations of the permit are a violation of the permit, and has added such a statement to the standard permit. With respect to reporting requirements for noncompliance with permit terms, TCEQ does not typically include such a condition in standard permits except in particular cases (for example, boilers equipped with a continuous emission monitoring system). Operations authorized under this standard permit are subject to all the rules of the commission including the recordkeeping and reporting requirements of 30 TAC Chapter 101, Subchapter F, Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities. Additional reporting requirements may apply if the standard permit facility is covered by a Title V permit.

EPA stated that they did not have access to the modeling used to make the determination for the lack of emission limits or operational limitations in the permit. EPA asked if TCEQ made the modeling data readily available, and if so, how was it made available.

The modeling data was made readily available; as stated in each standard permit proposal technical summary document, the modeling data for each standard permit was and is available upon request.

IX. STATUTORY AUTHORITY

This standard permit is issued under THSC, §382.011, General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.023, Orders, which authorizes the commission to issue orders necessary to carry out the policy and purposes of the TCAA; THSC, §382.051, Permitting Authority of Commission; Rules, which authorizes the commission to issue permits, including standard permits for similar facilities; THSC, §382.0513, Permit Conditions, which authorizes the commission to establish and enforce permit conditions consistent with Subchapter C of the TCAA; and THSC, §382.05195, Standard Permit, which authorizes the commission to issue standard permits according to the procedures set out in that section.

AIR QUALITY STANDARD PERMIT FOR ANHYDROUS AMMONIA STORAGE AND DISTRIBUTION OPERATIONS

Effective Date: April 7, 2010

This air quality standard permit authorizes the air emissions associated with anhydrous ammonia storage and distribution operations that meet all of the applicable conditions listed in sections (1) through (6) 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 anhydrous ammonia storage and distribution operations (including portable nurse tanks stored on site) on or after the effective date of this standard permit. This standard permit also authorizes any fugitive emissions associated with an anhydrous ammonia storage and distribution operation authorized by this standard permit.

(B) An anhydrous ammonia storage and distribution operation does not qualify for authorization under this standard permit if any of the facilities to be authorized under this standard permit are used to manufacture ammonia or any other ammonia products on site or are located at a site where the anhydrous ammonia is used for purposes other than agricultural handling and distribution. This requirement does not preclude the use of on-site polyphosphate blenders as defined in section (2) of this standard permit.

(C) An anhydrous ammonia storage and distribution operation 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.

(D) 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.

(E) 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 (6) 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 anhydrous ammonia storage and distribution operation) at the site provided the anhydrous ammonia storage and distribution operation remains in compliance with all requirements of this standard permit. On-site polyphosphate blenders, authorized through another applicable mechanism, may be used in association with an anhydrous ammonia storage and distribution operation.

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

(G) This standard permit does not authorize emissions from on-site polyphosphate blenders.

(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) Polyphosphate blender - a facility, or group of facilities, that receives, mixes, reacts, and blends ammonia, superphosphoric acid, and water to manufacture liquid fertilizer.

(D) Site - a site as defined in 30 TAC §122.10, General Definitions.

(3) General Administrative Requirements

(A) Specific notification requirements for this standard permit are located in section (5) of this standard permit.

(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; §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 shall be operated in accordance with a mitigation plan that describes the methods and procedures utilized by the facility to reduce the risk of a catastrophic release of anhydrous ammonia from traveling off site. This plan shall include precautionary controls including (but not limited to) sprinkler systems, lock-out systems, and barricades around the permanent storage tanks. Additional precautionary controls such as fire extinguishers, dikes, and alarms may also be included in the mitigation plan. This mitigation plan shall be kept on site and be accessible at all times.

(B) Facilities authorized by this standard permit shall be operated in accordance with a contingency plan that describes the actions used at this facility to notify persons in the immediate area of a sudden release of anhydrous ammonia. This plan shall include procedures to contact police and fire departments, as well as a discussion of emergency protocol by employees and the installation of special equipment to prevent anhydrous ammonia vapors from becoming airborne. This contingency plan shall be kept on site and be accessible at all times.

(C) All valves, connectors, flanges, and hoses associated with anhydrous ammonia handling authorized by this standard permit shall be properly maintained in leak-proof condition at all times.

(D) When transferring anhydrous ammonia, all vapors shall be vented back to the host tank and never to the atmosphere.

(E) When relieving pressure from connectors and hoses associated with permanent storage tanks and any nurse tanks authorized by this standard permit, all anhydrous ammonia vapors shall be bled into an adequate volume of water and never released to the atmosphere. A container of water shall be reserved for this purpose, and the water shall never be saturated with ammonia.

(F) Each permanent anhydrous ammonia storage tank and any nurse tanks authorized by this standard permit and stored on site shall be equipped in such a manner that will prevent unauthorized access.

(G) A barrier that will prevent accidental ruptures from vehicular traffic shall be erected and maintained around the permanent anhydrous ammonia storage tanks authorized by this standard permit.

(H) A water spray system shall be installed to minimize and suppress ammonia emissions in the event of a release from, or rupture of, any permanent storage tanks authorized by this standard permit.

(I) Audio, olfactory, and visual checks for facilities authorized by this standard permit shall be performed according to the following requirements:

(i) Audio, olfactory, and visual checks for anhydrous ammonia leaks within the operating areas and within the nurse tank storage areas shall be made once per day during normal business hours.

(ii) Immediately, but no later than five hours upon detection of a leak, plant personnel shall take the following actions:

(a) isolate the leak;

(b) commence repair or replacement of the leaking component; and

(c) if immediate repair is not possible, a leak collection or containment system shall be used to prevent the leak until repair or replacement can be made. Permanent repair or replacement shall be made within 15 days of detection of the leak.

(J) While stored on-site, each nurse tank shall not contain anhydrous ammonia in a quantity greater than one percent of the total nurse tank capacity.

(K) One or more of the following methods shall be used to control emissions from all in-plant roads, truck loading and unloading areas, parking areas, and other traffic areas to maintain compliance with all TCEQ rules and regulations:

(i) sprinkling with water as necessary;

(ii) treating with effective dust suppressant(s) as necessary; or

(iii) paving (with a cohesive hard surface) and cleaning as necessary.

(L) All emission control equipment shall be properly maintained and operated during the operation of the facilities authorized by this standard permit. Scheduled maintenance of the control equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment and control efficiencies are 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 anhydrous ammonia storage and distribution operations 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 storage and handling of anhydrous ammonia;

(ii) records of all audio, olfactory, and visual checks for anhydrous ammonia. These records shall include dates and times checks are performed and the results of these checks to demonstrate compliance with paragraph (4)(I)(i) of this standard permit;

(iii) records of leak repairs and replacements to demonstrate compliance with paragraph (4)(I)(ii) of this standard permit;

(iv) documentation accurately reflecting the different types, service (light liquid, heavy liquid, or vapor), and quantity of valves, seals, flanges, and open-ended lines for all permanent anhydrous ammonia storage tanks;

(v) all records to demonstrate that the anhydrous ammonia storage and distribution operation meets the applicable emission rate and minimum setback distance limitations determined by using Figure 1 of this standard permit;

(vi) records of scheduled maintenance of the control equipment to demonstrate compliance with subsection (4)(L) of this standard permit; and

(vii) records containing sufficient information to demonstrate compliance with paragraphs (6)(C)(i) through (6)(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 an Anhydrous Ammonia Storage and Distribution Operation (New, Modified, or Existing)

(A) In addition to section (4) of this standard permit, anhydrous ammonia storage and distribution operations 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; and

(ii) an anhydrous ammonia storage and distribution operation shall meet one of the following scenarios:

(a) total ammonia emissions from the site (including emissions from facilities and activities as specified in section (6) of this standard permit) shall be less than or equal to 0.65 pounds per hour (lb/hr); or

(b) total ammonia emissions from the site may be greater than 0.65 lb/hr if all facilities (including facilities and activities as specified in section (6) of this standard permit) emitting ammonia at the site meet the minimum setback distance to the property line determined by using Figure 1 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 of this standard permit.

(B) If a polyphosphate blender 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.

(C) Written notification submitted to the appropriate TCEQ regional office is required for the authorization of anhydrous ammonia storage and distribution operations under this standard permit.

(D) Registration is not required for anhydrous ammonia storage and distribution operations authorized by this standard permit.

(6) 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 anhydrous ammonia storage and distribution operations that are authorized by this standard permit:

(i) abrasive blasting (wet blast and dry abrasive cleaning);

(ii) surface preparation;

(iii) surface coating;

(iv) compressors, pumps, or engines, and associated pipes, valves, flanges, and connections;

(v) 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;

(vi) vacuum cleaning systems;

(vii) hydraulic oil filtering;

(viii) lubrication; and

(ix) 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 ammonia transfer 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 (6)(B) and (6)(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 ammonia transfer operations:

(i) any applicable PBR under 30 TAC Chapter 106; or

(ii) any other applicable standard permit.

ANHYDROUS AMMONIA STORAGE AND DISTRIBUTION OPERATIONS

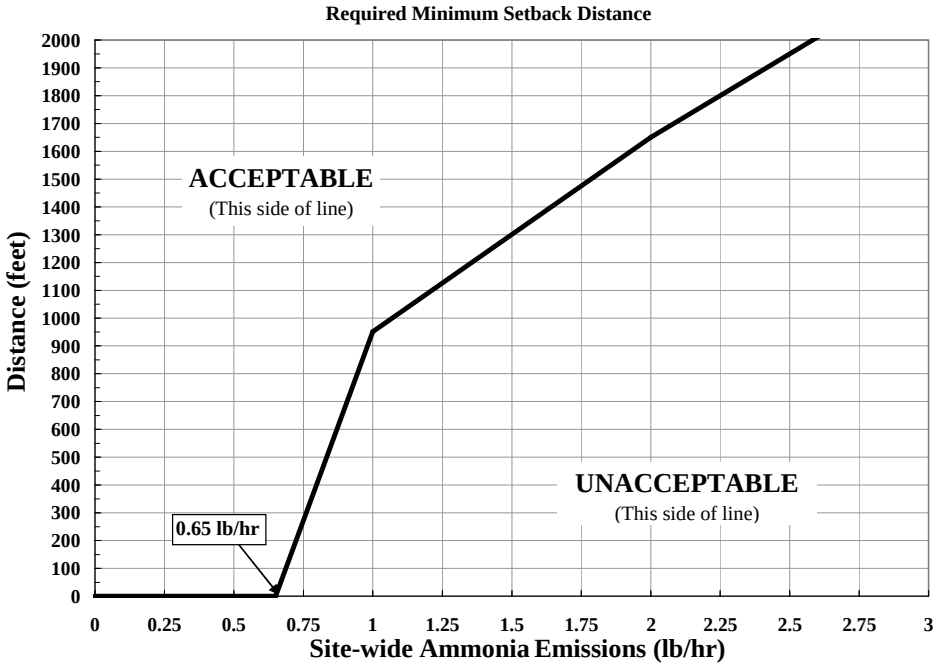

Figure 1